

BP Pushes LLDPE

INSIDE CMR

DU PONT SHIFT: The company sets up a new automotive unit with annual sales of \$2 billion based at Michigan center. Autos are the company's biggest market.....Page 3

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0 Ex my

i ne first u.s. ratent was chemical... Akzo Chemie America chemists recently added to the list.

In a curious coincidence of history, the first U.S. patent was a chemical patent for obtaining potash. In 1938 the first use for Armak Chemicals fatty amines was as a flotation reagent for recover-ing potash. Since then, chemists at Akzo Chamie America have been busy in numerous fields as evidenced by some of our recent patents:

UNITED STATES PATENT [14] Zakaria 11114.398.919

154) POLYETHOXYLATED COMPOUNDS AS COALWATER SLURRY SURFACTANTS 1751 INVENTOR Monech Zakaria, Western Springs, III.

The present invention is directed to squeous comminuted coal sturies. Specifically, the inver ion is directed to sturies that include as surfec-lants about 0 1 to 0.5 weight percent surfacent compounds, as for example polyoxyethylene (2) oleamide, and which typically have a cost solids content of 70%

UNITED STATES PATENT [19]

Newman 13114.398.918 1541 USE OF ECHOXYLATED DIALKYL.
OUATERNARY AMMONIUM DERIVATIVES ASSUSPENDING AGENTS FOR
COALOIL MIXTURES 1751 INVENTOR: Thomas C. Newman. Ifinstale, III.

AUSTRACT

CHEMICAL MARKETING REPORTER

wherein H₁ and R₂ are each allphatic groups having from B to 22 carbon aloms, wherein y and z are integers having a value of 1 or greater, the aum of y and z being between 2 and 15, and wherein X is an anion selected from the group consisting of CH₂COO -, CI -, BO₃ -, and (CH₂I₂SO₄ -.

ponding to the formula.

Committed coal-oil mixtures are provided which

may be maintained in a homogeneous state by the addition of a polyethoxylated, straight chain all phatic quaternary ammonium compound corres-

UNITED STATES PATENT 1191 Richmond 11114.399.044 1541 TEXTILE SOPTENING COMPOSITION |75| INVENTOR: James M. Richmond, Naparville, III.

ADSTRACT A composition for imparting softness to textile materi-als, comprising an ethoxylated amido amine quaternary sell or an ethoxylated midazolinium quaternary selt.

UNITED STATES PATENT 1191 Richmond 11114,401,577 154 QUATERNARY AMMONIUM DINYDROBORATES IN FABRIC SOFTENER FORMULATIONS

1751 INVENTOR: James M. Richmond

This disclosure relates to fabric softening composi-lions containing qualemery ammonium dihydro-borates and to methods of softening textites employing such compounds and compositions. Such soften-ing compositions have unusually and unexpectedly favorable stabilities in 3% dispersions in water

UNITED STATES PATENT (14) White |11|4,425,444

154 POLYOLS FOR URETHANE-MODIFIED ISOCYANURATE FOAMS A method for the manufacture of prethane-modified A method for the manufacture of prethane-modified polyleocyanurate foants in which an isocyanete is blended with a "B" aide comprising a polyof blend, a surfacent, a blowing agent, and a catalyst. The polyof blend comprises at least 5% (w1.) of a mixture of a polyalkoxylated amine and a polyalkoxylated quaternery ammonium borate ester, at least 40% (wt.) of a resin polyof, with any remainder being a polyather or polyaster polyof. All components of the "B" side will remain a homogeneous liquid without phase separation and williout the need for agitation for at least 7 days after blending. The resin polyofs are preferably moderate viscosity, aromatic polyaster polyofs derived from polycarbomethoxyl-substituted diphenyla, polyphanyla, and banzyl esters of the toluste family.

UNITED STATES PATENT [19] Richmond [11] 4,409,109 1541 FABRIC SOFTENING COMPOUNDS AND METHOD 175 INVENTOR: James M. Richmond ABSTRACT

For more information contact Akzo Chemie America, Armak Chemicals, 300 South Wacker Drive, Dept. AP, Chicago, Illinois 60606.

Novel fabric softening compounds or an incompla (CHCHO), CCH, occu HAMINOROLLINE OCCII)

wherein R₁ and R₂ are independently selected from the group consisting of alighbetic rationals containing from about 8 to about 22 carbon atoms. R₂ and R₃ are independently selected from the group consisting of hydrogen and methyl. R₃ is selected from the group consisting of hydrogen and alighetic radicals containing from about 8 to about 22 carbon atoms. x and y are independently integers from 1 to about 20, and z is 0 or 1, are disclosed. Also disclosed is a motived

Akzo Chemie America White for a trea reproduction of the first U.S. paten The United States. The Months shall wine Greating. a quantity of Salt: These are thrusper in purposenes of the ach entireded." In Not be promote the Cognific of weight but it to historical meaning. These are thrusper in purposenes of the ach entireded." In Not be promote Rights and sections (Rights and believe to the time of fourth thruspers of the Martin south humans of present and the chal of the Martin south humans of present and the chal of the Martin south humans of the section of

Consumer Groups Ask FDA Ban on Methylene Chloride

Two consumer groups asked a Federal judge last week to order Food & Drug Administration to ban methylene chloride, a suspected carcinogen that is routinely used to decaffeinate coffee.

Consumer Federation of America and Public Citizen said in a suit filed in US District Court that FDA and Health and Human Services Department are violating the Delaney Clause of the Food, Drug and Cosmetic Act—a provision that requires a ban on chemicals that cause cancer in animals.

The suit said several scientific studies have found that methylene chloride causes cancer in the livers and lungs of mice and may cause cancer in the mainmary and saliva glands as well.

Last December, FDA proposed to ban the law is particularly egregious in light of the

chemical's use in cosmetic products, but said the amount used to take caffeine out of coffee is "considered to be safe," It said fewer than one out of one million people would develop cancer from lifetime consumption of coffee treated with methylene chloride.

FDA spokesman Emil Corwin said until the agency is able to examine the complaint in detail and consider its implications, "Our position is the same as it was in December."

Katherine Meyer, the attorney representing the consumer groups, said, "The law clearly provides that food additives that cause cancer in animals must be banned from the food supply. Anything less than a total ban violates the law and deprives con-

sumers of the protection Congress intended.
"The FDA's unwillingness to abide by the

fact that some manufacturers of decaffeinated coffee use safe alternatives, such as water, in the decaffeination process," Miss

"Unfortunately, consumers cannot tell which brands use methylene chloride simply by reading the labels," she added.

The lawsuit also claimed Federal officials decided that "only a small number of cancers will be caused by exposure to the substance" in decaffeinated coffee and did not propose a

The FDA decision "is disastrouswould allow the Reagan Administration to continue to ignore the laws enacted to protect ess of conducting further tests. the public's health, in favor of protecting the profits of the food industry," said Dr. Sidney Wolf, director of Public Citizen's Health Re-

percent at present to 25 percent by 1990,

PPG, Nippon Oil Agree

To Study Joint Projects

cals projects in Japan.

PPG Industries, Inc. and Nippon Oil &

Fats Company have agreed to study joint

development of several specialty chemi-

involving chloroformates, acid chlorides,

fabricated products based on PPG's "CR-39"

flame retardant resins and non-opthalmic

optical quality monomer, according to

Robert D. Duncan, vice-president of the com-

Mr. Duncan says the companies have "complementary and synergistic" techno-

logical strengths and that the projects under

consideration would support both compa-

nies" diversification efforts into value-added

venture with NOF could lead to annual sales

of \$75 million within five years," Mr. Duncan

Chloroformates and acid chiorides, used

primarily for pharmaceutical and agricul-

tural chemical synthesis, would be produced

at PPG's joint venture plant with Asahi Glass Company at Chiba, Japan. The Asahi-Penn

Chemical Company plant, in operation since

1987, currently produces chlorine deriva-

Market development has been underway in

"We expect that establishment of a joint

directly with NOF on the project.

chemical products.

Under initial consideration are programs

Volume 229

subsidiary.

The potential cancer-causing effects of methylene chloride are being investigated by Environmental Protection Agency, Conauct Safety Commission, and Oc-

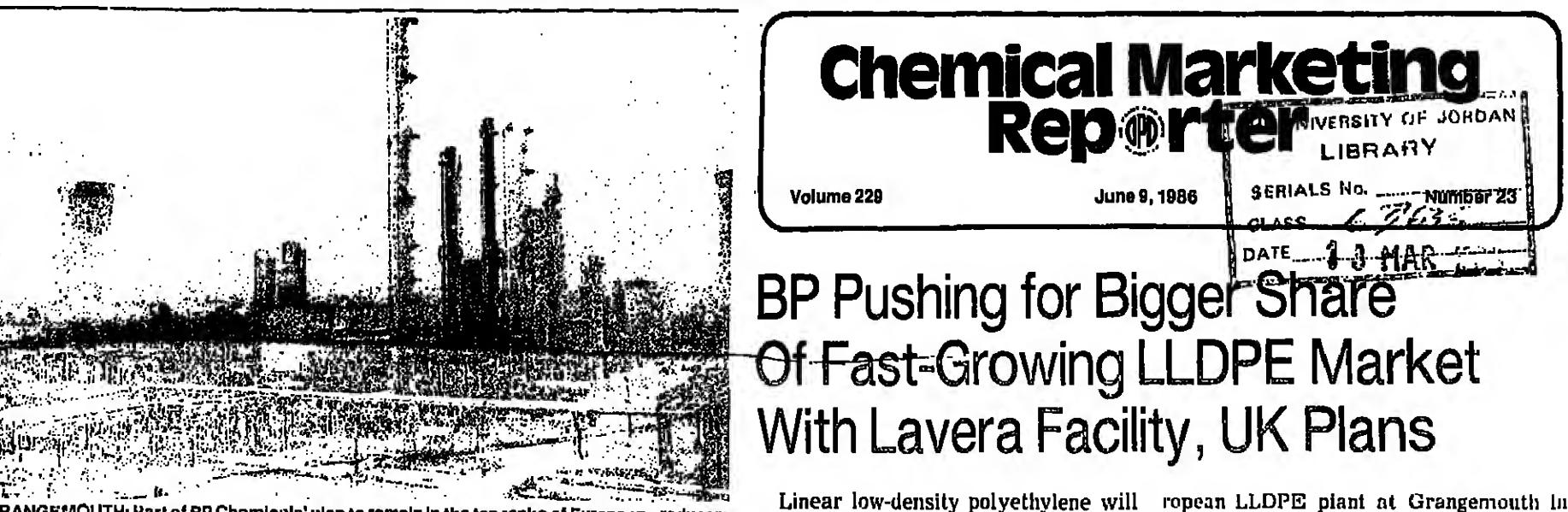
ic , as well as by FDA.

The Halogenated Solvents Industry Ainance, a trade group representing all methylene chloride producers, maintains: "Consumer safety is one of the reasons methylene chloride has been safely and widely used for some 50 years." The producers have questioned the relevance of certain animal tests to humans, and are in the proc-

The trade group notes that epidemiology studies of 1,200 workers exposed to methylene chioride over a 20-year period showed no increase in cancer.

Chemical Marketing

RED Premiversity OF JORDAN



of linear low-density polyethylene includes new capacity at its huge Grangemouth chemicals

DuPont Sets Automotive Unit With \$2 Billion in Annual Sales

E.I. du Pont de Nemours & Co. has set up a new industrial department, to be called the automotive products department, that will combine the company's automotive businesses which account for \$2 billion in annual sales. The worldwide automotive French subsidiary, BP Chimie. industry represents Du Pont's single largest market segment. Commenting on formation of the new unit, Edgar S. Woolard, Jr., vice-chairman of Du Pont, said it later this year the building of a second Eu-

"represents a major restructuring of our resources" to serve the automotive industry worldwide.

He pointed out that if the new unit was an independent company it would "rank among Fortune's list of the nation's top 200 flrms.' Headquartered at Du Pont's \$25 million corporate automotive development center in Trov. Mich., which was dedicated last year, the department will be headed by John P.

McAndrews, group vice-president. The Du Pont executive formerly headed the finishes and fabricated products department and will relocate to Detroit. PRODUCTS FOR AUTOS

Mr. McAndrews says the new department will allow the company to better concentrate on the worldwide automotive industry with its products which range from high performance finishes and thermoplastics to structural composites, electronics and specialty polymers, films and chemicals.

"The total opportunity for automotive materials is tremendous," he says, "and we fully expect this opportunity to increase four-fold by the year 2000."

providing component systems to auto makers and says he believes Du Pont will become a major systems supplier based on its techni

Du Pont's current automotive business is in North America, the company also plays a

automotive customers there. For example, in Japan, he says the company supplies engl-neering 'polymers' and "Vespel" polyimide parts from its facilities at Utsunomiya and Continued on Page 26

With Lavera Facility, UK Plans ropean LLDPE plant at Grangemouth In Linear low-density polyethylene will Scotiand, where it already has substantial push up its share of the Western Eu-

polyethylene capacity.

ropean polyethylene market from 10 Linear low is the key to BPCI's plans to remain a leading force in Europe's predicts BP Chemicals International polyethylene market. (BPCI), British Petroleum's chemicals

The company has pinpointed polyethylene, along with acetic acid and specialty chemi-BPCI itself expects to take a sizeable share cals and plastics like performance polymers of that increase at the premium end of the and polyisobutenes, as the three main sectors market following the commissioning earlier on which to concentrate its future investment

this year of its new gas-phase LLDPE plant at Lavera, near Marseilles, France, run by its "We have the strength in raw material and marketing as well as the technological re-The company is also expected to announce sources to make polyethylenes a strategicaily important area for us," said Ray Knowland, BPCI's managing director at a press conference at the official opening of the Layera plant May 29.

The company is aiready one of the region's major polyethylene producers with capacity of around 600,000 metric tons a year.

Current negotiations with Bayer of Germany for BPCI to take over the marketing of the polyethylene from the companies' joint venture Erdoichemie at Worringen in West Germany would make it the number two producer in Europe, with a total capacity of

Unitike the US, linear low poly has been slow to penetrate the European polyethylene market, but has been considerably boosted by a flow of imports over the last two years from three LLDPE plants in Saudi Arabja. pany's chemicals group, which is working Output from two of these plants is marketed

Continued on Page 49



-Ray Knowland

Celanese Cuts Capacity

DU PONT AUTO CENTER: Troy, Mich. Du Pont executives examine a display featuring

"Bexloy" automotive engineering reals and "Surlys" inomer resins application in automo-

Celanese Fibers will reduce production capacity for polyester textile staple at its Salis, bury, N.C., plant by 185 million pounds over the next 18 months.

This capacity reduction at Salisbury, addition to previously announced industry reductions, will bring capacity more into balance with expected demand. This move will have no significant effect on income.

The permanent shutdown of older production equipment will require the elimination of 150 to 200 Jobs.

cal know-how and broad product offering Mr. McAndrews says that while much of

major role in supplying markets in Europe, Latin America and the Asia Pacific area. In Asia, he says the company is in the process of expanding operations to better serve

Japan for about two years on new resin compounds that could provide much higher levels of flame retardance than existing products PPG says. The companies may eventually produce the products in Japan, PPG adds.

tives and "CR-39" monomer.

PVC Producers Seek to Raise June Prices to Repair Inroads Made in the US Market Earlier

Polyvinyl chloride resin producers, close its La Porte VCM plant, rated at squeezed for supplies of raw material vinyl chloride monomer, have implemented 2-cent-per-pound resin price increases at the beginning of June, thereby attempting to regain price levels that had eroded in May.

B.F. Goodrich Company, the nation's largest PVC resin producer has established a June 1 price schedule of 30 cents per pound for pipe grade PVC resin; 31 cents per pound for general purpose homopolymer; 32 cents per pound for "special purpose" and wire and cable grade resin, and 33 cents per pound for film grade resin. A company spokesman says the action "restores prices" to April levels before a May slide in selling values.

Vinyl chloride is traditionally tight at this time of year, but operational problems experienced by two integrated VCM-PVC producers in May has caused dislocations in the market, sources say. B.F. Goodrich had to

billion pounds per year, for five to six days iast month, and also ran into problems at its Calvert City, Ky., piant, one VCM source says. Formosa, also an integrated producer has lost several days of production at its 420million-pound Baton Rouge, La. VCM plant, the source adds.

Both Goodrich and Formosa have attempted to buy VCM in the open market, sources say, but were largely unsuccessful, because most excess material had been committed to the export market. As a result, one analyst says Goodrich has been forced to cut production of PVC and dip heavily into its supply of inventories.

A VCM maker calls the situation a "temporary dislocation." He says that if a company wanted to contract large quantities of VCM, his needs could be met, but large spot orders are impossible to meet because export demand is strong and VCM producers, failing to Continued on Page 29

Dye Decision Avoided Yet Again

Food & Drug Administration last week tor of Public Citizen's Health Research postponed a decision, for the 30th time in 23 years, on whether to ban five widely used food and drug dyes, four of which have been shown to cause cancer in laboratory animals.

The postponement means the color additives will remain on the market until FDA makes a final decision.

Agency spokesman James Greene says the delay will permit FDA to conduct further scientific review of the dyes, but consumer groups and some congressional critics believe the postponement is a result of industry pressure.

"The agency is just trying to figure out how they can rationalize the fact that they're breaking the law by allowing cancer-causing chemicals in food, drugs and cosmetics," says Dr. Sidney Wolfe, direc-

Ciba-Geigy to Cut

dyestuffs, there.

mented last week.

Toms River Workforce

In Restructuring Move

tension, depression and arthritis.

employed at Toms River. It is estimated that

about 325 will be employed there several

years from now, when the restructuring and

pharmaceutical unit are completed.

Phasing out synthesis of industrial chemi-

cals at Toms River will "result in a signifi-

waste and thus is compatible with the resi-

dential and recreational nature of the sur-

president and chief executive officer, com-

In announcing these developments, the

company also reaffirmed its previous com-

mitment to invest in upgrading the environ-

mental protection operations at the plant,

These include the \$25 million investment for

the extensive wastewater treatment plant

ungrade and the toxicity reduction program.

FDA believes the dyes are harmless and agrees with industry that the substances can cause cancer only if they are consumed in massive quantitles. "The continued provisional use of these additives presents no hazard to the public health," says Mr. Greene.

FDA was required by the Food, Drug and Cosmetle Act to evaluate the safety of all color additives by January 1963. A congressional report sharply criticized the agency last year for its inaction.

"This is an ongoing embarrassment to the whole regulatory process," said Rep. Ted Weiss (D-NY), chairman of the House panel that prepared the report. He accused the agency of being too concernedwith the interests of industry.

TSCA Reports Mandated by EPA In a Final Ruling

Environmental Protection Agency last week issued a final rule requiring chemical manufacturers and importers to report current production and plantsite information on thousands of commercial chemicals.

The new rule, mandated by the Toxlc Substances Control Act, requires companies to report to EPA this year and again every four

EPA says the Information will be used for preliminary assessment of risk to human health and the environment.

"The data for many chemicals in the existing inventory are becoming increasingly obsolete, and we need updated, readily available production volume and plant-site data," says Dr. John Moore, assistant administrator for pesticides and toxic substances.

"This kind of information gives us a pre-Ilminary indication of a chemical's potential for human and environmental exposure and will help us target our regulatory efforts," he

The rule requires the first substantial update of production and plant-site data for chemicals listed on EPA's chemical substances inventory. The original inventory was developed under TSCA and required the reporting of 1977 production information.

EPA will collect the latest information on chemicals in the current inventory on / plant-by-plant basis, including each chemical's identity, whether the firm is a manufacturer or importer, the site of the plant where it is manufactured or imported, whether use of the substance is iimited to the site where it is manufactured, how much is produced, the plant's technical contact person and whether any of the information is confidential.

TSCA gives companies the right to clalm inventory data as confidential when absointely necessary, but confidentiality claims must be asserted and supported when they submit the data to EPA.

"EPA strongly encourages firms to limit confidentiality claims as much as possible

Auto Plastic Uses by Japanese in the US Seen Having Major Impact on the Industry

The 2 million passenger cars and light trucks which could be manufactured an-Ciba-Geigy Corporation said last nually by Japanese and Korean compaweek that it will phase out the synthesis nies in North America by the early 90's of resins and dyestuffs at its Toms River, will concentrate purchasing power for N.J., plant over the next several years, almost 400 million pounds of plastic while continuing the formulation of resin and 140 million pounds of elas-according to the study. tomer within a new group of partici-The company plans to transfer resin syn-ihesis to its McIntosh, Ala., plant. A review of pants, according to a study by Phillip Townsend Associates. Marblehead

alternative sites for the future synthesis of dyestuffs is in progress, according to the The recent decline of the dollar has affected imports and encouraged auto OEM's Ciba-Gelgy also said it plans to build a new \$90 million pharmaceutical facility at Toms and Japanese suppliers to increase their commitments to North American manufac-River which will manufacture active ingreturing facilities concentrated around new dients for medications used to treat hypermanufacturing hubs in Kentucky, Ohio, Ten-Approximately 900 workers are currently

nessee, Illinois and southern Canada. "A high degree of loyalty characterizes the auto OEM/supplier relationship in Japan." according to Robert Ellor a Townsend Associate analyst. It is probable that Japanese auto OEM's will prefer working with suppliers with the same cultural traditions with

whom they have done business for decades. cant reduction of our production-generated "This preference creates a circle of events which result in investment by Japanese auto part suppliers and resin companies in North rounding area," Richard Barth, Ciba-Geigy's

The pressure exerted by Japanese auto companies on their parts and materials suppliers strongly encourages investment in North American facilities. In effect, the auto OEM says that if you wish to supply In Japan and Taiwan you must supply in North Amerlca as well, Townsend Associates says.

The Japanese auto suppliers are likely to introduce new materials technologies (espe-

cially for polypropylene compounds) and cause a "rlpple effect" should they decide to enter non-automotive markets.

"Native" North American auto parts suppliers who successfully participate in the supply circle will be better positioned to serve evolving global auto parts markets,

Japanese elastomeric parts fabricators are also establishing manufacturing operations in North America.



William J. Cribbin, who has been named president of Devon Chemicals Inc., a Joint venture between BP Chemicals Americas inc. and Ashland Chemical Company. Mr. Cribbin was formerly with Union Carbide.

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ABC ABP

Richard J. Sutch, who has been named president of OxyTech Systems, a newly formed 50-50 joint venture of Occidental Chemical Corporation and Eltech Systems Corporation.

Polysar Gets Approval

For New Latex Venture

With Chinese Company

chemical company.

The Chinese government has ap-

proved an agreement between Shanghai

Gao Qiao Petrochemical Corporation

and Polysar Ltd. of Sarnia, Ontario,

Canada, to form a joint venture petro-

Polysar says this represents the first such agreement for a Canadlan petrochemical

company. Formal approval was granted by

the Chinese Ministry of Foreign Economic

Relations & Trade. The 50-50 joint venture,

to be known as Shanghai Gao Qiao—Polysar

Company Ltd., wili use Polysar technology in

a program to significantly increase produc-

tion capacity of synthetic rubber latexes in

The initial phase will use Polysar technol-

ogy to triple the capacity of Gao Qiao's exist-

ing 1,000-metric-ton latex plant in Shanghai,

Phase two invoives the construction of a new

10,000-ton latex plant using Polysar technol-

ogy and the marketing of its output by the

joint venture. The third phase will examine

other opportunitles for Polysar's involve-

ment in the Chinese latex industry, the Cana-

Contracts for phase 1 have been signed and the upgraded capacity is expected to be

available for the Chinese market by early

Biotechnology Company

Has Microalgae Source

For a Higher Fatty Acid

Cyanotech Corporation, Woodinville,

Wash.-based specialty producer of high-

value products from microalgae, says it

has successfully developed an algal

EPA, a C₂₀ polyunsaturated fatty acid with

oils, is believed to be effective in reducing

risk of heart disease and in preventing or

even reversing, formation of atherosclerotic

Several fish off products containing EPA

contain other fatty acids with closely similar

otech, its algal source contains no closely

related fatty acids, meaning EPA purifica-

Continued on Page 17

the People's Republic of China.

dian firm says.

1987, Polysar says.

acid far simpler.

plaques in the arteries.

tion would be much easier.

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Biotechnology Reform Bill, Sponsored by House Chairman, Is Criticized by Industry Group

Before taking action on proposed leg-islation designed to bring major reforms to biotechnology, Congress should wait to assess the effectiveness of new regulatory procedures devised by the White House, an industry spokesman said last

"The Industrial Biotechnology Association believes no new legislative initiatives are needed." IBA executive director Richard D Godown told two House Science & Technology subcommittees at the first congressional hearing since 1978 on legislation to regulate the biotechnology industry.

Rep. Don Fuqua (D-Fla.), chairman of the House Science & Technology Committee, sponsoring a bill that would require Environmental Protection Agency or Department of Agriculture to grant approval before genetically engineered organisms could be re-

leased into the environment, used in manufacturing, or distributed in commerce.

It would also establish statutory authority for the existing Biotechnology Science Coordinating Committee to promote uniform pro-cedures for evaluating risks, to recommend research priorities, and to develop guidelines governing laboratory and manufacturing

A research program supported jointly by government and industry would be set up to fund basic biological research relevant to biotechnology research.

Similar legislation has been introduced the Senate by Sen. Dave Durenberger (R-Minn.), chairman of the Environment & Public Works subcommittee on toxic substances. Mr. Godown said a motivating force behind Rep. Fuqua's legislation "seems to be

desire to regulate the technology itself Continued on Page 43

LAB Expansion Slated

Monsanto Chemical Company plans to expand capacity, improve the quality and undertake a research program for its linear alkylbenzene (LAB) business. The three-part investment program will focus on MCC's LAB facility at Alvin, Tex. The program's first phase, which is now in the definitive engineering and design stages, will be a 50-million-pound-per-year expanalon of the LAB unit. "We believe the additional 50 million pounds will serve the US and Canadian markets well into the 1990s," says Roger F. Sellew, commercia director for detergents.

"A second element of our investment pian will be to implement a major quality improvement program. This improvement project will ensure the production o the highest quality LAB available in the industry and is designed to better meet and ultimately exceed our customers' demands for a quality LAB," Mr. Sellew

Board of directors approval for the ex-

pansion and quality improvement projects will be requested in the near future. The projects have targeted start-up dates in early 1989.

The third phase of the program will focus its detergent research on the development of technology to produce highly soluble LAB specifically for the rapidly growing ilquid detergent market.

'Our efforts are currently in the experimental stages, and we are confident that our research will lead to the commercialization of LAB providing greater flexibility to the detergent manufacturers," Mr.

Investment plans for the LAB facility follow Monsanto's acquisition of Witco Corporation's Carson, Calif., plant last year. The Carson plant has a yearly capacity of 50 million pounds for LAB. It also produces 25 million pounds annually of branched and specialty alkylate for the agricultural emulsifler and oil additives

Chemicals Banned For Export to Syria; War Use Is Feared

The US banned the sale of eight chemicals to Syrla last week, citing fears that Syrian built chemical weapons will be given to Iran and escalate the protracted war in the Persian Gulf.

The embargo, which Is identical to one imposed two years ago on Iran and Iraq, was extended to Syria after US intelligence discovered that country had the capability to make chemical weapons. Syria has been sup-

porting Iran in the seven-year conflict.

The eight chemicals on the embargo list are potassium flouride, dimethyl methylphosphonate, methyl phosphonyl di-flouride, thiodiglycol, phosphorus oxychlo-ride, dimethylamine hydrochloride, and

The chemicals have widespread commercial applications in US industry, but in certain combinations and strengths can make potent weapons.

A State Department official said that while the embargo was being considered, the Commerce Department determined that no American companies were currently selling the eight chemicals on the list to Syria. The embargo, he sald, would guard against future sales and might also influence other countries to halt exports of the chemicals to Syria.

The ban on chemical exports directly to Iran and Iraq was imposed two years after government officials intercepted a large shipment of chemicals heading from the US to the Persian Gulf reigon.

The State Department spokesman said Iran has not used chemical weapons, "but their continued use by Iraq and the potential for Iranian use is a cause for concern.'

In a related development, President Reagan said Thursday the Administration is ready to intensify negotiations for a global ban on chemical weapons at the Geneva talks that have been unable to make progress on the issue since 1968.

The Prersident met with his representative to the talks, Ambassador Donald S. Lowitz, before the ambassador departed for the 1986 round of the discussions at the 40-nation conference on disarmament in Geneva. Switz, which opens today (June 9).

system through activation of natural killer

cells and increased expression of tumor anti-

Separately, scientists at Blogen and Mas-

achusetts General Hospital have produced a

human protein through genetic engineering

techniques that will be tried against several

types of female reproductive tract cancer.

ICI and Enka to Swap FDA Approves Alpha-Interferon Products Polyester and Polyamide To Rationalize Positions

Imperial Chemical Industries PLC of the UK and Enka, the Dutch fiber maker. have agreed to swap their respective market positions in polyester staple and polyamide filament yarn.

ICI will progressively withdraw from the production of polyester staple fibers at its Wilton, Teesside, plant in favor of increased output there of "Melinar" polyethylene ter ephthalate (PET) packaging material.

During ICI's phased withdrawal from the polyester staple fiber business over the nex source for eicosapentaenoic acid (EPA) two to three years, output of the material which would make purification of the from its Wilton plant will be marketed b Enka, which has a strong position in the busi

five double bonds that is found in certain fish Meanwhile, ICI will market polyamide textile flat yarns manufactured at Enka's Emmen pl. nt in the Netherlands until production of the yarns is completely phased out by the end of the decade.

Enka earlier decided that it would not are currently available in the marketplace modernize the Emmen plant because its and some estimates put a value on retail market share in polyamide yarns is "rather sales of EPA as high as \$25 million annually.

However, fish oils containing EPA also ... The agreement with ICI will allow Enka to Biogen NV, which holds both US and Eugradually eliminate the plant's workforce chemical structures, complicating the sepathrough attrition, avoiding major union probration and purification. According to Cyan- lems that would come with forced layoffs. Production there will be phased out in tandem with employment until 1989 or 1990, when the plant is expected to be closed com-

Also, the company says its microalgal EPA product is essentially free of cholesterol Production of polyamide carpet yarn at Emmen will not be affected.

Of Schering-Plough, Hoffmann-La Roche Food & Drug Administration last ment of interferon when they agreed last week approved the commercial use of year not to contest each other's patent rights human alpha interferon produced sepato the product in the US and Europe (CMR 5/20/85, pg. 3). rately by Schering-Plough Corporation Interferon enhances the body's immune and Hoffmann-La Roche Inc. for the

treatment of hairy cell leukemia. Alpha interferon is the first product of biotechnology to be approved in the US for the treatment of cancer. It has already been commercialized abroad.

"While the approved indication - hairy cell leukemia — is relatively rare, this approval confirms our long-held belief, supported by research and clinical findings, that alpha-2 interferon is an effective form of therapy with an important role to play in modern medicine," Robert P. Luciano, chairman and chief executive officer of Schering-

Plough, said last week. Applications are pending in the US for the use of alpha interferon in the treatment of other cancers, including malignant melanoma, and for the prevention of the

By 1990, it is estimated that worldwide sales of alpha interferon could reach \$350

Schering-Plough acquired exclusive marketing rights to alpha interferon in 1979 from ropean patents to the drug. Schering-Plough will market alpha interferon under the trade name "Intron" A.

Roche developed its product in collaboration with Genentech Inc., and will market the drug under the name "Roferon"-A. Roche and Schering-Plough avoided a potentially long and costly legal battle thut

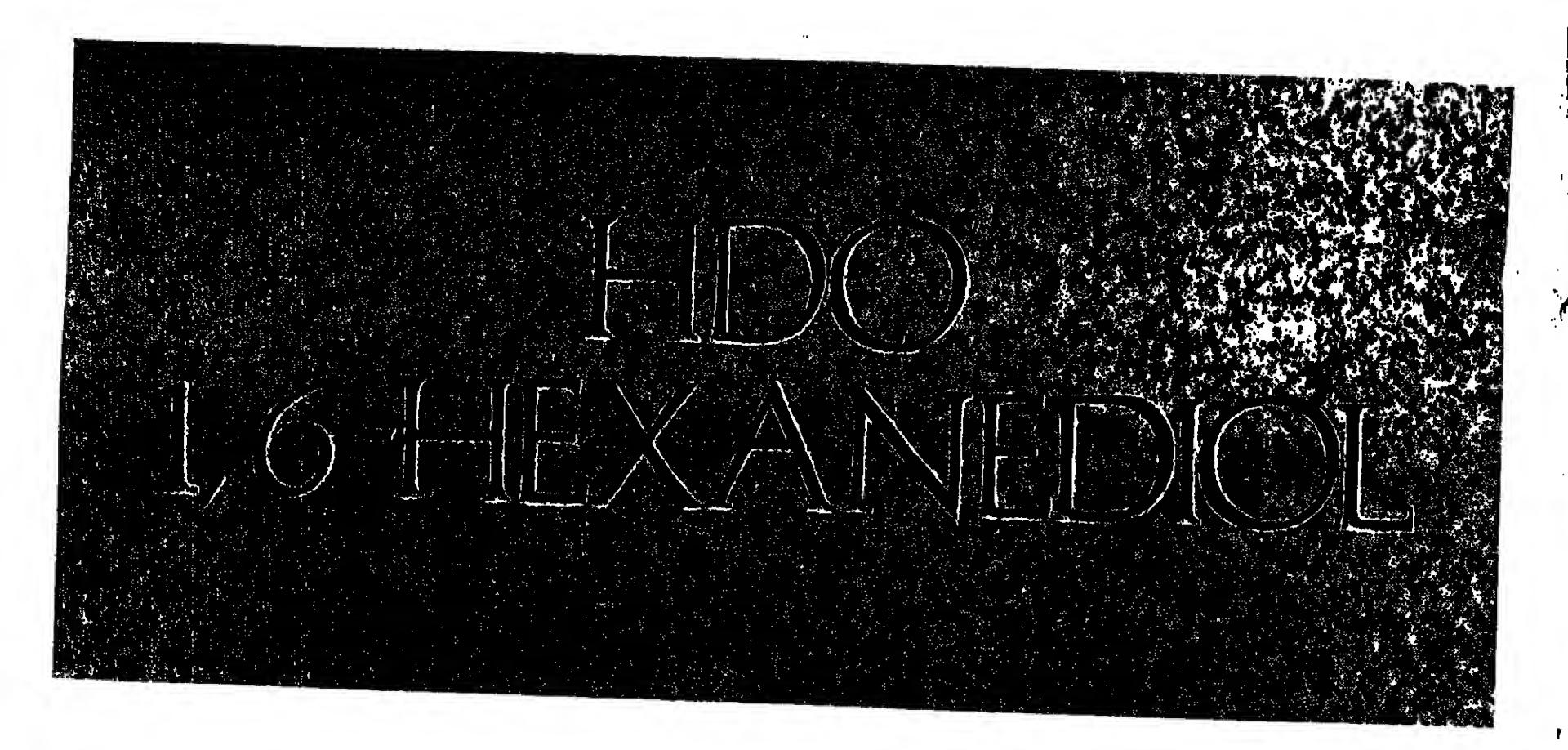
ALPHA-2 INTERFERON CRYSTAL. Photomicorograph of Biogen/Schering-Plough recombinant Interferon alfa-25 manufactured by magain

could have retarded commercial developliave retarded commercial develop of recombinant DNA technology.

June 9, 1986 CHEMICAL MARKES INC. REPORTER

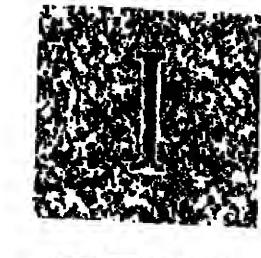
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June 9, 1986

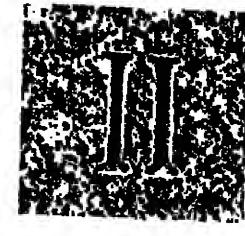


BASF BUILDS A MONUMENT FOR THE PLASTICS, COATINGS AND ADHESIVES INDUSTRIES.

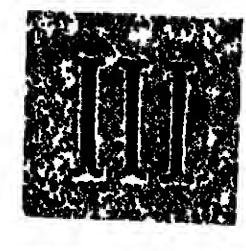
Our new world-class plant facility in Freeport, Texas for the production of HDO 1,6 -hexanediol is now fully on stream with the capability of satisfying demand for many years to come. BASF Corporation's U.S.A.-made HDO offers four major advantages to users.



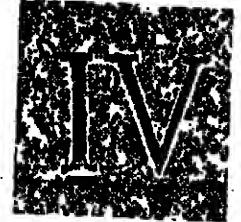
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June 9, 1986





Robert C. Forney CMA INSTALLS NEW SLATE: Chemical Manufacturers Association at its annual meeting in White Sulphur Springs, W. Va. has elected Worley H. Clark, Jr. chairman of the board and Robert C. Forney vice-chairman of the organization. Mr. Clark, chairman of the board and chief executive officer of Naico Chemical Company, succeeds George J. Sella, chairman of the board, president and chief executive officer of American Cyanamid Company. Mr. Forney, executive vice-president of E.l. du Pont de Nemours & Co., replaces Harold A. Sorganti, president of Arco Chemical Company, who was elected chairman of the CMA executive committee.

Sulfite Labeling Standards **Are Urged by Food Scientists**

The vast majority of the US population enjoys the benefits sulfites contribute to the food supply without risk, but proposed labeling standards should be adopted to protect some highly-sensitive asthmatics, who may suffer polentially fatal allergic reactions if exposed to these chemical preservatives, food scientists said last week. Six sulfiting agents — sulfur dioxide, sodium and potassium metabisulfite, sodium

and potassium bisulfite, and sodium sulfite - have been widely used in foods for

However, their use has come under fire

recently for causing allergic reactions, in-cluding as many as 19 possible fatalities, so strengthened regulation has been called for. "Labeling appears to be the best regulatory approach," according to a scientific status summary report released by a food safety and nutrition panel of the Institute of Food Technologists, an organization repre-

senting some 22,000 food scientists Food & Drug Administration last year proposed two regulations to deal with sulfites. One would ban the use of sulfites on fresh fruits and vegetables; the other would require warning labels on foods containing more than 10 parts per million of sulfite.

The report, prepared by Dr. Steve L. Taylor and Dr. Robert K. Bush of the University of Wisconsin, at the direction of the IFI panel, is intended to offer guidance to FDA and other agencies on how the use of sulfites

The researchers concluded that sulfites can cause adverse reactions in about 20 percent of steroid-dependent asthmatics, equating to about 180,000 persons nationwide. Based on earlier research, FDA has estimated that between 500,000 and one million people may run the risk of sulfite reaction. The IFT scientists noted that while further tests are needed to decermine what types of

sulfites and sulfited foods trigger reactions,

Continued on Page 24

Orthoxylene Recovery Seen Lasting Through '88, Maybe '90; Overcapacity Persists, However

Following six years of 7 percent annual decline in production, the orthoxyene market last year began what one of the production of the pro nual decline in production, the orthoxylene market last year began what one industry observer terms a "mini-recovery" which is expected to continue a least through 1988 and possibly through

Whereas production of the isomer totaled 1.08 billion pounds in 1979, a dramatic drop in exports, increased imports and greatly reduced demand for phthalic anhydride brought about a decline in orthoxylene production to 696.5 million pounds in 1984.

Last year, output rose to 698.1 million pounds. An observer estimates in 1986 the total will be about 700 million pounds. For the coming years, 1.5 percent growth is forecast through 1988 and possibly the rest of the decade. At such a rate, output in 1990 would total 743 million pounds, the industry's highest since 1983 when 773.4 million pounds of product were produced.

Despite relatively recent plant closures, capacity utilization would average a modest 77 percent this year should output total the

pounds of annual production capability from the market, while the departure of E.I. du Pont de Nemours & Co., Inc. last Fall reduced industry capacity another 25 million pounds. At present, industry capacity totals

905 million pounds per year.
To cope with the overcapacity, producers periodically cease production according to market conditions and restart when demand dictates. It is significantly less costly to shut down and bring back up an orthoxylene unit over the course of a few weeks than it would

be to do so with other types of units.
Also, when the orthoxylene market is glutted and prices are weak, as has often been the case the past few years, producers with the equipment to do so isomerize orthoxylene to paraxylene to capitalize on a hoalthy paraxylene market.

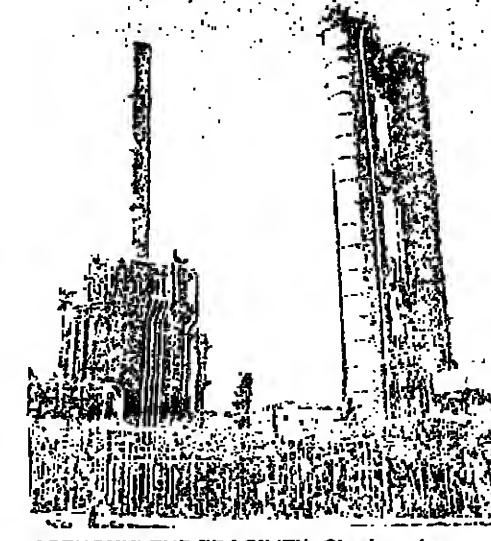
Most of the loss of business which has created the overcapacity is blamed on the dras Continued on Page 13



Thirteen Japanese companies have agreed to pay patent royalties to Phillips Petroleum Company for their polypropylene which is contained in resin and fabricated products (e.g., for autos, appliances) exported from Japan to the United States.

Phillips holds the U.S. composition of matter patent on crystalline polypropylene granted in March 1983. Phillips also holds two U.S. patents, granted in 1976 and 1977, directed to propylene block copolymers, generally referred to as impact polypropylene.
All three patents are the subject of the li-

The royalty payments are based on a rate of 1 cent per pound, adjusted for inflation. Annual imports of polypropylene from the companies, collectively, are estimated at 110 million pounds (50,000 tons).



bor of orthoxylene plants has reduced capacity in the US to 905 million pounds per year. This was once a Shell Chemical facility. Shell exited the business in late 1984.

Olin Agrees to \$15 MM Compensation Fund To Settle Litigation Over DDT Exposure

Olin Corporation has agreed to establish a \$15 million compensation fund to settle claims of plaintiffs in Northern Alabama, who say they were injured by discharges of DDT pesticide from Olin's former manufacturing plant at the Redstone Arsenal in Alabama.

Ciemon. Hearings on the proposed class-action settlement are scheduled to be held in the Olin said last week that while there is no evidence that DDT discharged from the Redstone Arsenal plant injured anyone, the co-

many wanted to "put the costs and disruption of the DDT litigation behind it." Under the terms of the proposed settlement, the court will appoint an administrator to establish procedures for making claims and determining compensation for personal

The settlement is subject to the approval

of Federal District Court Judge U.W.

injury, property damage or loss of income. Members of the class will consist of plaintiffs in the litigation and current and former residents of six countles in Northern Ala-

Since 1983, approximately 9,700 plaintiffs have filed suits against Olin, alleging personal injury and property damage. Olin says the court previously dismissed many of these claims on various grounds, including the fact that they exceeded the statute of limitation. Olin says the court also dismissed various claim theories, including intentional infliction of emotional distress, outrage, assault, battery and trespass.

Olin agreed in 1982 to clean up the DDT

Dioxin 'Dangerous' at Oxy Site

Unsafe levels of highly toxic dioxin have been discovered at an Occidental Chemical Corporation site in Niagara Falls, NY, Environmental Protection Agency said last week.

However, the agency sald the plant site. Last month, Alcoa offered to spin off the Vancouver plant as a separate entity if workers there would agree to a reduced wage

Alcoa closed the plant after the Vancouver workers joined other union locals in a vote to go out on strike against the company following the expiration of labor contracts on May

Emery Chemicals. He was most recently direc-

Aluminum Company of America has

permanently closed its Vancouver,

British Columbia, aluminum smelter,

laying off 450 striking production work-

ers there. The plant had an annual ca-

Alcoa's wholly-owned capacity, most of which is in the US, now stands at 1.1 million

tons, compared to over 1.4 million tons prior

Alcoa said the Vancouver closure would be

accounted for as part of a \$175 million

charge in the fourth quarter of 1985 relating

to a company restructuring program.

tor of the elecchemicals group.

Alcoa Closing Down

Its Vancouver Smelter

pacity of 115,000 metric tons.

to the restructuring.

According to an Alcoa spokesman, the company told the Vancouver workers that their vote was "tantamount to a shutdown" and offered a 60-day extension of the previous contract to allow time for negotiating s separate contract.

poses "no imminent or substantial danger to the public health" because it is not accessible to the public. James R. Marshall, an EPA spokesman, said direct human exposure to the chemical was "extremely unlikely"

because it is buried below the ground and covered with asphalt. Occidental Chemical's Hookeroperation manufactured pesticides at the Niagara Falls site from 1949 to 1972. A company

spokesman says the facility was shut down and dismantled shortly after pro-

tions of one part per billion threaten health if there is direct and frequent expo-New York State environmental offi cials says the chemical will have to be removed to avoid offsite migration, in-cluding possible contamination of the Ni-

duction stopped and disposed of in a "se-

EPA found concentrations of dioxin of

one part per billion on the surface at the

site, and as high as 18,600 parts per billion

underground. The Federal Centers for

Disease Control says dioxin concentra-

EPA said the levels of dioxin detected at the Occidental plant site exceed the concentrations found in soll samples taken from Love Canal and three other.

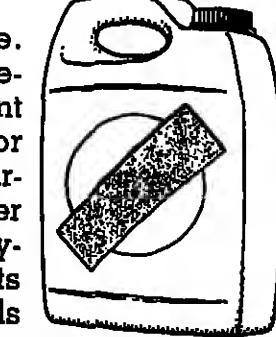
residue near the former Alabama plant, which was closed in 1971. Olin says the cleanup is under way and is expected to be completed by early 1988.

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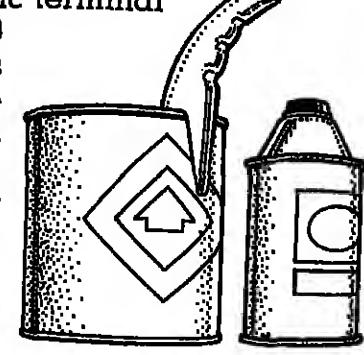


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Degussa's Sales Decline Reflects Prices



Karl A. Stewart, who has been elected secretary of Tenneco inc. Mr. Stewart joined Tenneco in 1977, after service with Securities & Exchange Commission.

Publicker's Sales Strong In Carbon Dioxide Area Following Restructuring

Publicker Industries Inc., Greenwich, Conn., says that its carbon dioxide business continued strong into the first period of 1986, as sales volume increased 6 percent and operating profit rose approximately 7 percent from levels of the

first period a year ago. Publicker's total sales in the first quarter declined to \$4,106,000 from \$13,112,000 a year ago, as a result of the shutdown during 1985 of operations related to industrial ethanol, fuel-grade alcohol, automotive products household cleaning products, bulk liquid storage and the company's contract packaging business.

In March, Publicker sold its idle facility for industrial alcohol in Philadelphia for \$3 million and used the proceeds to retire secured debt under its domestic term loan

Publicker said that it is now actively pursuing the potential saje of its remaining idle facilities and seeking a purchaser for the UK beverage division. Publicker anticipates that the sale of these facilities will generate substantial additional working capital for use in the company's acquisition program.

Publicker's results in the first period show

a net loss of \$745,000, as compared with a loss of \$1,256,000 in the same period a year ago. The loss included \$375,000 in a management contract settlement and \$552,000 for closure of the contract packaging division.

Chesebrough-Pond's Puts Hospital Unit on Block

Chesebrough-Pond's, Inc. is offering to sell its Hospital products division and will use the proceeds to strengthen its basic businesses in consumer products and chemicals, said Ralph E. Ward, chairman of the company and chief executive officer.

Shearson, Lehman Brothers, Inc., New York, is acting as financial advisor for the transaction. A year ago, Chesebrough, a dlversified producer, of cosmetics, toiletries, foods, shoes and textiles, made a major diversification by acquiring Stauffer Chemical Company, of Westport, Conn.

T.R. Larsen, vice-president of manufacturing, who joined Chesebrough in 1970 and

has served as head of manufacturing for the hospital products division since 1974, has been named president and general manager of the division, succeeding Robert E. Karlson, who is taking a medical leave of absence.

The division to be sold had sales of \$84.5 million last year and will tally its revenues in the \$100 million range in 1986, Mr. Ward said.

The division's sales growth has exceeded 16 percent per year compounded over the last five years,

Degussa, Frankfurt am Main, a diversified German metals concern, had sales of \$2,29 billion in the fiscal year ended March 31, 1986, a decline of about 9 percent from the previous year's revenues.

Unit sales remained high, Degussa said, but the volume in Deutsche marks was reduced by falling prices of gold and silver, together with the weakening of the dollar. Some 68 percent of the company's turnover was accounted for by foreign business, as

cent from the previous year. Disregarding precious metals, revenues were up 1 percent livery good results, the company said.

In the metals sector, a lower volume of proved results after a poor showing the precent from the previous year. Disregarding precious metals, revenues were up 1 percent

foreign trade and a downturn in precious metals prices led to a decrease of 12 percent in total revenues. In chemicals, an increase of sales of about 2 percent would have been larger were it not for price decreases, which reflected lower prices of raw material, plus the lower value of the dollar in overseas mar-

Degussa's pharmaceuticals sector achieved a slight increase in revenues in the first half of the year, when lower sales abroad were compensated by higher domes

Among the company's larger subsidiarles, Asta-Werke AG, Bielefeld, and Degussa

Perstorp of Sweden Boosts Sales 12 Percent in 8 Months

Perstorp AB, the big diversified producer of chemicals and biotechnology products based in Sweden, raised its international sales 12 percent in the fiscal eight months ended April 30 to the equivalent of \$365 million from \$321 million a year ago. Both numbers have been converted at the present exchange rate on the Swedish kroner. In November, Perstorp added to its extensive product line the business of La

Bakelite SA, in France, one of the largest manufacturers of resins and phenolic

molding compounds in Europe.

The French company is expected to add upward of \$35 million annually to Perstorp's consoldiated revenues. Business trends for the acquired unit have been favorable, Per-

Blfok AB, which is a part of Perstorp Biotec (a blotechnology operation), recently acquired two companies — Servomed AB and Servochem AB, both of Stockholm, as well as a new subsidiary in the US, Servomed Inc.

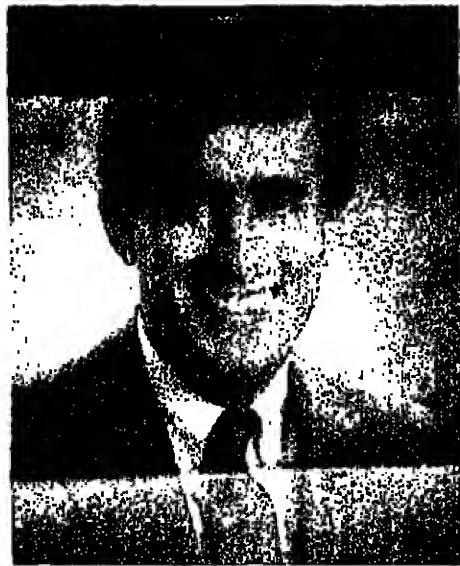
The activities of the two Swedish companies are concentrated in analytical Instruments for distillation, including brewery op-erations, and for use in health care and other medical outlets. The acquisitions strengthen Perstorp's participation in the food and animal feed industries, the company noted.

Two new licensing agreements for the production of formalin (37 percent solution of formaldehyde) have been signed with customers in West Germany, and a license for the production of industrial grade laminate has been sold to a company based in India.

In another transaction, Perstorp Chemitec has acquired Gunfred-Gruppen AB's buslness activities in the field of seamless flooring and wall partitions, strengthening Per-storp's activities in the field of plastic and composite building materials.

Also, Pernovo Incorporated in the US acquired 67 percent of the shares of Guided Wave, Inc. in Sacramento, Calif., a company that works with sophisticated analytical techniques for instruments and process con-

Perstorp's operating income in the first eight months increased to \$43.5 million from \$39.8 mlllion in the same period a year ago. Income after net depreciation and financial items amounted to \$33 million, up from \$30 million a year ago, while income before allocations and taxes totaled \$31.4 million, up from \$30.1 million.



Michael J. Mudler, who has been appointed vice-president of finance for the vinyl division of B.F. Goodrich Company.

Diamond Shamrock Sells Stake in UK Subsidiary

Diamond Shamrock Corporation has sold its 75 percent interest in Lankro Chemicals Ltd., a UK maker of specialty chemicals, to Lankro management for an undisclosed sum.

The remaining 25 percent interest had been distributed or put in trust for Lankro employees in 1983.

Lankro, based in Eccles, with plants in the UK, Belgium and West Germany, makes polymer additives, polyurethanes, surfactants and radiation curing chemicals. Sales last year were approximately \$100 million.

Chemical Financial Briefs

DuPont Ventures Incorporated, McLean, Va., has acquired for an undisclosed amount of stock and cash a controlling interest in Synergistic Technologies Inc., a privately held company headquartered in Richmond, Va., which develops and applies technology for the surface modification of metals.

Amoco Corporation and Analog Devices. Inc. have filed an SEC registration statement for the sale of Amoco's 16 percent interest in Analog's common stock. The move is in line with Amoco's policy to concentrate on its core businesses, says Richard M. Morrow, chair-

Revion Group, Inc., has agreed to sell.

Technicon Corporation to a consortium of investors, including Cooper Development

Company, for \$250 million in cash, subject to adjustments, and \$50 million principal amount of preferred stock.

Forest Laboratories, Inc. has contracted with Key Pharmaceuticals, Inc. to acquire rights to the latter's "Aerobid" metered aerosol corticosterold used in the treatment of asthma. Introduced in december 1984, the product is currently selling at the annual rate of \$2.4 million. The agreement is subject to consummation of the pending Schering-Plough/Key

Kidder, Peabody & Co., as sole manager of the underwriting group, is offering to the public \$125 million of Tyco Laboras tories inc. 6,75 percent convertible subordinaled depentures due May 15, 2008.

vious year, but in Brazil, the currency reform had a negative impact on the results of De-

Accruals of fixed assets at Degussa AG totaled about \$48 million during the year, in line with a scheduled increase over the previous year's \$44 million.

Degussa noted that it has reached agreement with Phillips Petroleum Company on the acquisition of Phillips carbon black plants. In the metals sector, Degussa expects that its position in the US will be strengthened by the acquisition of Metz Metallurgical Corporation, South Plainfield, N.J.

Meanwhile, control of Chemische Fabrik Grunau GmbH, of Illertissen, West Germany, passed to Henkel KGaA, Dusseldorf, as of

IMC Write-Offs Will Produce Loss Of \$4-\$6 Per Share

International Minerals & Chemicals Corporation is estimating that its final results for fiscal 1986, after write-offs, dispositions and adjustments, will be a net loss in the range of \$4.30 to \$6 per share.

IMC's earnings from operations before any of the special charges are now estimated to be slightly below the previous forecast of 50 cents per common share.

To boost earnings in the next fiscal year. IMC is preparing plans for commercialization of porcine growth products developed through blotechnology, George D. Kennedy, president and chief executive officer of IMC,

In the near future, Mr. Kennedy added, there are likely to be two other new product introductions that will add to the growth of the animal products group.

The acquisition earlier this year of Mallinckrodt Inc. from Avon Products Corporation was cited by Mr. Kennedy as a major step in the company's long-term strategic plan for diversified growth. Mallinckrodt produces fine chemicals and intermediates for pharmaceuticals and personal-care prod-

In the fourth quarter of the present fiscal year, IMC is continuing to review several of its under-performing assets for possible write-down or write-off, and may also sell, or reach a decision to sell certain assets, including its gas and oil unit and ail or part of its industrial products segment.

IMC also expects to complete the previously announced charge to earnings for the purchase price premium allocated to Mailinckrodt's inventories.

Enzon and Cyanamid Set A Joint Veterinary Project

Enzon, Inc., South Plainfield, N.J., and American Cyanamid Company, Wayne, N.J., have reached an agreement in principle to develop and market specific veterinary products.

The two companies said they have completed successful first-round testing of a biologically active polypeptide derivative utilizing Enzon's "PEG" process.

This Enzon technology is said to provide protection to the usually fragile polypeptides against normal physiological degradation processes, thus extending their circulating life in the blood and providing long-term blological activity.

Enzon and Cyanamid said they intend to extend the use of Enzon's technology initially to a broad range of veterinary pharmaceutl-

Enzon, Inc. is a pharmaceutical company specializing in enzyme therapy to treat a wide range of life-threatening diseases, offering specialized enzymes for therapeutics, research and industrial applications.

American Cyanamid produces chemicals. pharmaceuticals, biotechnology products and personal care products
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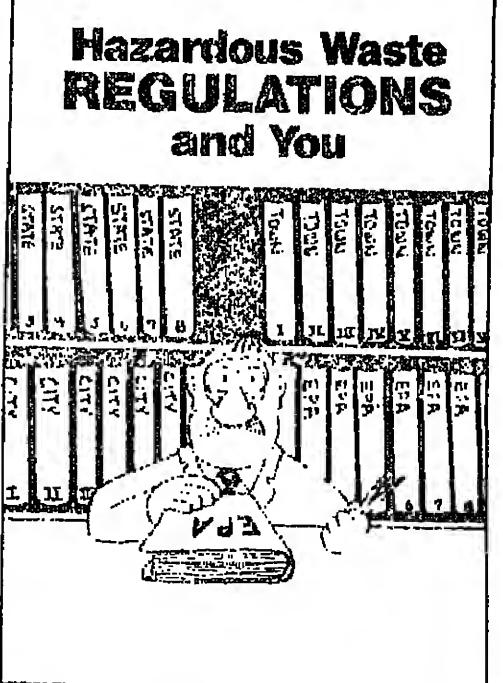
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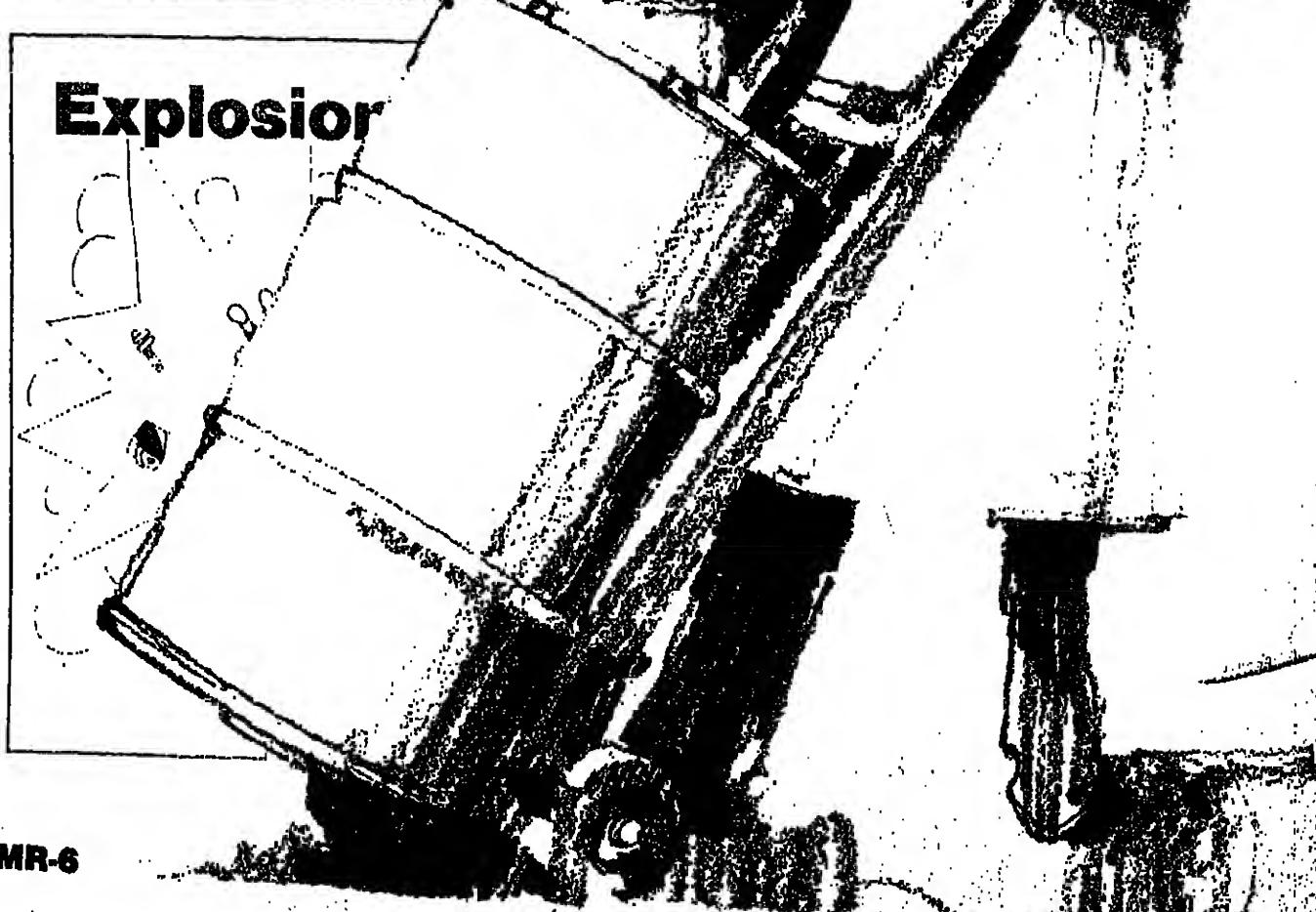


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CHEMICAL MARKETING REPORTER

OILS, FATS & WAXES

Reichhold and Union Camp Follow TOFA Price Reduction

Reichhold Chemicals, Inc. and Union Camp Corporation last week cut their prices on tall oil fatty acids (TOFA), following other producers who had made changes the previous week. The lower pricing is attributed principally to competition from fatty acids based on veg-

etable oils and tallow. Reichhold says it is decreasing its TOFA pricing by 3 cents to 4 cents per pound, effective June 1. Representative changes are "Aconew 500" which drops from 29 cents to 26 cents per pound, and "Acofor" which falls from 27 ½ cents to 23½ cents per pound. On the other hand, Reichhold says it is increasing prices on its rosin size products by 10 percent, effective June 1.

Union Camp says it is reducing its TOFA pricing by 5 cents per pound, effective June 2. A sample change is "Unitol ACD-SP" which

drops from 32 cents to 27 cents per pound.
In addition, Union Camp says it is cutting its distilled tall oil (DTO) pricing by 2 cents per pound, and a sample change is "Unitol DT-40" which falls from 23 cents to 21 cents per pound. The company says it is increasing its tall oil rosin pricing by 1 cents per pound, and a sample change is "Unitol NCY-grade which rises from 22 cents to 23 cents per

The previous week, Arizona Chemical Company cut its TOFA prices by 1 cents to 4 cents per pound, and Hercules Incorporated dropped its TOFA prices by 2 cents to 4 cents

A spokesman at Reichhold says his company cannot afford to lose any market share to competitors, and a Union Camp spokesman says his company's "adjustments reflect current market conditions."

TOFA producers are "very much at the mercy of soybean oil," says an industry source. The soybean oil price has been holding in the 17 cents to 18 cents per pound range for the past several weeks, while a year ago it was approximately 32 cents per pound. Present TOFA list prices show a similar relationship to those of a year ago.

Fractionators acknowledge that a good deal of business has gone to soybean oil based fatty acids over the past year, as TOFA prices were slow to respond to the fall in vegetable oil pricing. A large volume of business in the coatings industry switched over, and a considerable portion of the dimer acids market switched as well, sources say.

With TOFA demand yet to pick up significantly in 1986, stocks of 2 percent and over rosin content material have been built up from 23.588 million pounds at the first of the

FRIDAY SPOT PRICES

MARKET CLOSE/JUNE 6, 1986

CRUDE VEGETABLE OILS	
Coconut oil, NYib.	.14
Coconut oil, Pacific	
Corn oil. Midwestb.	.1775
Cottonsead of Valley	.171/2
Linseed oil, Minnespolislb.	.30
Palm oil, NY	.141/4
Peanut oil, Southeast (restricted)	.28ask
Soybean oil, Decatur	.1730

REFD. VEGETABLE OILS

OILMEALS

Cottonseed, 14% bulk, Memphie.....ton \$130 Linseed, extracted, 34% bulk, Mpis....ton \$108 Peenur, 50% bulk, BE, Alebama......ton .NA Boybean, unrestricted, 44% bulk,

FATS & GREASES Grense, white, choice, tanks, divd., NY..ib. .9

Grease, yellow maximum 10%, ffa tanks.ib. .81/2 Lard, loose, bulk tanks, divd., Chicago ..ib. .10 Tallow, Inadible, fartoy gusr., tanks, divd..., fallow, inedible, fancy bleach., tanks,...!

year to 39.741 million pounds on May 1, according to Pulp Chemicals Association.

Stocks of less than 2 percent rosin content material, which stores poorly and is said to be less sensitive to soya fatty acid competition, have been more stable during the per-

The price increases on rosin and rosin size are attributed by industry sources to a slight downturn in rosin inventory levels, modest demand, and, for rosin size, an upturn in the

Correction: due to typographical errors, the amount of Arizona Chemical Company's price changes on distilled tall oil (DTO) and tall oil rosin (TOR) were incorrectly reported

PRICES TRENDLINES

WEEK ENDING JUNE 6, 1986

CHANGES/UP

Coconut oil, NY, 1c. per lb. Cottonseed, 41% bulk, Memphis, \$5 per ton Soybean, 44% bulk, Decatur, \$3.50 per ton

CHANGES/DOWN

Cottonseed oil, Valley, ½c. per lb. Grease, white, choice, tanks, divd., NY, ¼c. per lb. Grease, yellow maximum 10%, flatanks, ½c. per lb. Soybean oil, Decatur, .20c. per lb. Tallow, inedible, fancy guar.. tanks, divd. NY, 1/1c. per lb.
Tallow, inedible, fancy bleach., tanks, didvd. NY, 1/1c.

OILS, FATS INDEX

The Oils, Fats & Waxes Index reflects the prices of 11 representative materials in this sector and the quantity of each produced in 1985.

ne 6, 1986	83.48
ıy 30, 1966	
y 9 1986	
ne 7, 1985	
Ob	4 and Daniel (100

Arizona's DTO product "Accintol D30LR" drops 1 cent per pound, from 24 cent to 23 cent per pound, effective June 1. Arizona's hot and canned TOR will increase by 1 cent per pound, effective July 1.

VEGETABLE OILS

CASTOR OIL - The price is quoted at 31 1/2 c. per pound, and has been holding steady the past few weeks. The market is said to be very quiet, as stock levels are high both in the US and in Brazil.

An industry source says that, though the Brazilian crop appears to be a bit smaller than expected, consumption has lagged as well. While the Brazilians may make an effort to raise prices slightly, the heavy stocks should work against such a move, says the

India, which last year put competitive pressure on the Brazilians with a large crop, has not had a good crop this year, and report-edly is not even offering material. PALM OIL — The price of this oil has been

fairly stable the past several weeks following considerable erosion earlier in the year. Heavy Malaysian exports have cut into stocks at a time when production is declining, and this has brought the market more into balance, sources say.

India has been importing large quantities of oil since dropping trade restrictions, and the Soviet Union has been active in the market as well, says a trader. Malaysian stock levels that were nearly 1 million tons in the first quarter are said to have come down to approximately 800,000 tons.
The Malaysian Agricultural Attache's pre

liminary estimate for Malaysian production in April is 326,000 tons, virtually unchange from March's 325,000 tons. Because produc Industrial Surfactants

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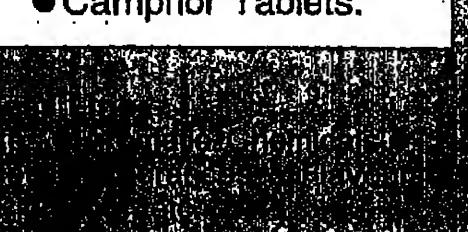
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OILS, FATS & WAXES

tlon in the second quarter traditionally has been higher than the first quarter, a source says these figures likely reflect a decline in rainfall and the weevil stress syndrome following the heavy production of the past several months.

FATS & GREASES

TALLOW - Pricing in this market has continued to weaken, and the market "still doesn't look too strong," says an industry source. It is said that there have been no large export orders recently, and that domestic interest has been on the slow side.

Last week, Egypt was expected to take 30,000 tons of tallow. However, it took 20,000 tons of coconut oil Instead. This leads an industry source to speculate that, since coconut oil is blended with tallow for soap production, the Egyptians must have a sufficient amount of tallow already on hand for their needs.

Palm stearine continues to provide strong competition for tallow, particularly in the Far East export markets, the source says.

WAXES

CARNAUBA WAX — The price of No. 3 wax is quoted between \$1.35 and \$1.45 per pound, and the price of No. 1 yellow wax is

quoted between \$1.90 and \$2.05 per pound both f.o.b. New York in bags. In carloads, the price is quoted at 80c. per pound for No. 1 grade and \$1.25 per pound for No. 1 grade.

Pricing of carnauba wax is "uniform for the moment," says one US buyer, after it firmed up in the first quarter. Although another rise in prices from Brazilian sellers is not ruled out, he says, "we have good-sized stocks," and, at the present lime, "there are more than several people willing to supply it," at stable price levels.

MISCELLANEOUS

COCOA BUTTER — The price is quoted between \$1.90 and \$1.95 per pound, and contlnues on a downward trend. There is "50 much supply of butter available, and demand is rather passive," says a trader.

It is said that there is a good likelihood that Ivory Coast production will exceed last year's large figure, says the source. Overall world production is seen as high this year. and growing over the long term as more trees are planted.

Price increases on candy and chocolate have cut into demand for these finished products, and this has contributed to lower cocoa butter consumption, says the source.

"Finished products demand is not strong." he says, and the great availability of cocoa butter gives producers little incentive to stock up on the material.

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AROMATIC ORGANICS

tically diminished export market. In 1980, exports totaled 484.8 million pounds and represented 51 percent of output. In 1985, exports shrunk to 75.4

million pounds and accounted for 10.8 percent of industry output.
Imports on the other hand grew rapidly. In 1981, the first year orthoxylene imports were

tallied independently by International Trade Commission, foreign shipments into the US totaled 23.1 million pounds. Last year, imports increased to 15 percent of domestic production, totaling 108.8 million pounds. Observers cite two reasons for the dra-

matic swing in the US orthoxylene industry's balance of trade, from net exporter to net importer: additional capacity worldwide and a fortified dollar.

"The US lost most of its exports, save for a small volume to South America," a producer says. "Russia is a major exporter interested in currency, not price."

"A stronger dollar," adds another producer, "gave producers overseas an advan-

The emergence of the Sovlets onto the scene in late 1983 endangered US orthoxylene producers' major export market, Europe. In their hunt for currency, the Soviets have also placed product in the US which has not only reduced domestic demand for US product, but has also weakened pricing.

Domestically-produced orthoxylene for the merchant market is used exclusively for the production of phthalic anhydride. Demand from this sector has also declined sub-

stantially the past few years.
Phthalic anhydride production totaled 1.04 billion pounds in 1979, dropping by 20 percent to 835.7 last year. Compounding this loss of business was the conversion by a phthalic anhydride producer, Koppers Company, Inc., of its reactor capacity from orthoxylene to naphthalene feedstock in 1985.

LOGICAL SWITCH FOR KOPPERS

The switch was a logical one for Koppers, the leading producer of coaltar naphthalene in the US, but for orthoxylene producers the shift translates into a loss of about 75 million pounds of demand a year.

While overcapacity and inexpensive imnorts have taken their toll on prices, a producer says additional price pressure has resulted from the competitiveness of the plasticizer business, the major outlet for phthalic anhydride accounting for more than half of demand.

"Orthoxylene has taken the brunt of the competitiveness of the plasticizer business,"
an orthoxylene producer says. "Orthoxylene producers have had to absorb the cost cut-

The orthoxylene producer claims this is changing, however, noting that producers of plasticizers "are no longer trying to increase share at the sacrifice of margins."

Further brightening prospects for improved profits are lower crude oil prices which in turn encourages increased consumption. Increased housing and automotive sales bolster demand for phthalic anhydride. Although no restoration to the former bal-

ance of trade is forecast, exports through the first quarter were running 10 percent ahead of last year's pace. Through March, exports totaled 26.4 million pounds.

Imports during the first quarter totaled 72 million pounds, up 56 percent from the same period a year earlier.

Contract prices for orthoxylene are reported between 12.5 cents and 14.5 cents per pound while spot market material is quoted at 12.5 cents per pound.

BIT - Producers report selling prices of approximately \$1.25 per pound, and say that pricing has been fairly flat this quarter. Neville-Synthese Organics, Inc. has been

"struggling to recover some lost accounts" this year as a result of the company's takeover of the Oil City, Pa., unit from Koppers Company at the first of the year.

Uniroyal Chemical Company says that Its "volume has picked up in the short term," and that Avery, Inc.'s purchase of Uniroyal

Chemical from Uniroyal, Inc., expected to be consummated by June 30, will have "no real

impact on (company) policy."

Producers have observed a decline in the effect of imports this year, and attribute this to the weakening of the US dollar. The level of imports is sald to be down, and the undercutting of domestic pricing is said to be less

BTX - Lower crude oil and gasoline prices have applied downward pressure to the benzene and toluene markets, industry sources note.

Spot benzene is quoted between 82c. and 86c. per gallon. There is said to be little activity in the market, as buyers hold off in antici-

PRICES TRENDLINES

WEEK ENDING JUNE 6, 1986

CHANGES/UP

CHANGES/DOWN

AROMATICS INDEX

The Aromatic Organics Index reflects the prices of 14 representative materials In this sector and the quantity of each produced in 1985.

P	
June 6, 1986	167.84
May 30, 1986	
May 9, 1986	
June 7, 1985	
Chemical Prices Star	

pation of lower prices. At this point, says one trader, a seller "would have to offer a buyer a real incentive" to gain his interest.

Spot toluene is quoted between 64c. an 66c. per gallon. Sources report that Shell Chemical Company has said it will pay no more than 62c. per gallon.

It is said that less than expected gasoline consumption over the Memorial Day weekend and high refinery operating rates have contributed to the downward pressure on

The xylene market is reportedly more stable and the price is quoted at 80c. per gallon. Over the past several weeks, industry sources have said that material has been difficult to obtain. "Some people have given up looking," says one observer, though another believes that material is beginning to be-

BENZYL CHLORIDE — A Velsicol Corporation spokesman says that the completion of the sale of its benzyl chloride unit in Chattannooga, Tenn. to an unnamed chemical company "is taking a little bit longer than earlier estimated." In early May, the company said it expected the deal to be completed within 30 days.

The Velsicol spokesman says the company is hopeful that the sale will be completed by mid-Summer. The transaction is part of the restructuring of Farley Industries, which purchased Velsicol's former parent company, Northwest Industries, Inc., which involves the sale of Northwest's specialty chemicals division, including the benzyl chlo-

DIHYDROXYNAPTHALENE - American Hoechst Corporation says it will increase the price of 2,3-dihydroxynaphthalene-6-sulfonic acid sodium salt. The change, effective July 1, will bring the price up to \$8.75 per pound, f.o.b. American Hoechst warehouses.

According to the company, the move represents an increase of approximately 7 percent over the current effective market price, and is in response to higher costs for imported raw materials. The chemical is said to be used primarily in the reprographics industry as a coating for sensitized papers.

American Hoechst also says it will raise the price of beta hydroxynapthole acid by Sc. per pound, effective July 1.

New contract prices will be: \$2.25 per

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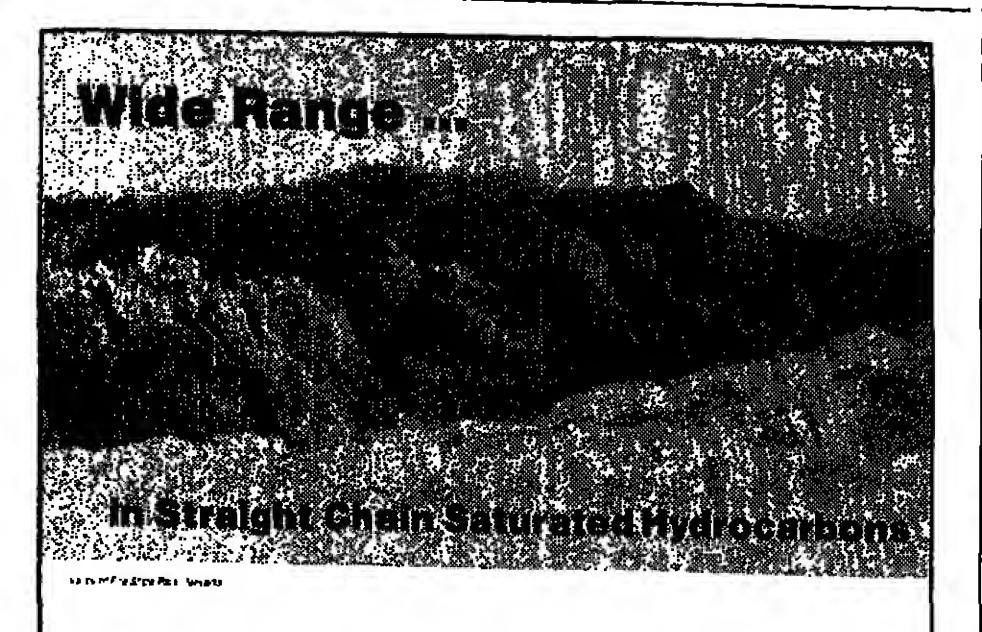
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CHEMICAL MARKETING REPORTER

June 9, 1986

AROMATICS

pound for truckload quantities, and \$2.35 per pound for less-than-truckload orders. Prices are f.o.b. warehouse or US shipping point, duty paid. Hoechst attributes the price increase to increased costs for imported material caused by the weaker dollar.

MDI — Producers say it appears likely that half of the half of the 8c.-per-pound industry-wide price increase will be achieved. Though they say that demand is good and the market is tight, they acknowledge that competitive pressures have been strong.

"Essentially, there was some activity go-ing on below (the level to which the price had been increased), and we chose not to have our

Customers penalized," one producer says.

One producer says he is hopeful that the shifting exchange rate will enable the full 8c. to go through by year's end. It is observed that imports accounted for approximately 20 percent of the US market last year.

PHENOL - Dow Chemical USA says It is increasing its phenol price by 3c. per pound, effective July 1. All other terms and conditions remain the same.

STYRENE - Amoco Chemicals says it is initiating a 1c. per pound temporary voluntary allowance (TVA) on styrene monomer. The price change, effective June 1, brings Amoco's effective price to 20c. per pound.

According to a company spokesman, the move reflects competitive market conditions. It is noted that the TVA can be removed upon seven days' notice, and it is expected that the price "will probably go as benzene

Celanese Debt Upgraded

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STRENGTH

After a slow start, the pipe market, spurred on by a strong housing market, is consuming large quantities of resin. Vinyl siding is performing very well in the home rehabilitation market. Demand in this market was up 27 percent in the first quarter. A tight vinyl chloride monomer market has pinched PVC availability, prompting producers to launch a 2c. price Increase in June.

WEAKNESS

Imports of PVC resin last year (400-million pounds) and finished goods (over 1-billion pounds) have cut deeply into domestic producers' markets, especially fabricated goods like footwear, luggage, and handbags. Despite the June price i increase, sharp overcapacity depresses pricing and cuts deeply into industry profitability.

OUTLOOK

PVC is beginning to make important inroads into the large diameter pipe market (municipal waster and sewer pipe). Vinyl siding is also expected to gain more acceptance in the new housing market, as are vinyl window frames. Fabricated imports will continue to take a bite out of many other vinyl applications. Total growth for the market is pegged at 3 percent a year.

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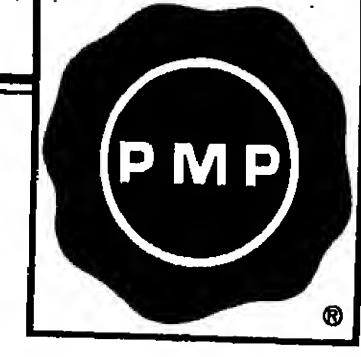
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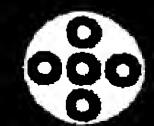


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June 9, 1986 2511, 111...

ALIPHATIC ORGANICS

Ethylene Producers Seeking Higher Prices for June, July

Ethylene producers hope to end a five-month period of price erosion with an-survive drastically reduced oil income an month period of price erosion with announcements for higher tabs this month and further increases in July. Sellers are asking 15 to 16 cents per pound for June and will attempt to add at least a penny to that for third quarter deliveries.

Prices during May averaged 141/2 cents per pound, a 3 1/2 cent per pound slide from early January transactions.

While suppliers enjoyed a period of profitability early in the year, they see little or no money being made right now as prices have dropped and feed costs have made a moderate comeback since April. While ethylene suppliers admit that they are covering cash costs, they assert that, overall, the product is losing money.

"Producers are looking at the full cost of production," says one supplier who adds "a few folks who are cracking ethane are making about 1/2 cent per pound, but everyone else has been losing money in the second

Notwithstanding the general improvement in the ethylene business since last year, producers see themselves slipping back into the red. "We were losing a lot more money last year but ethylene is still not making a profit," according to the producer who points out, "the question is whether producers have lost enough to make an attempt to improve

Jack Doerr, of IPC Consultants, the Houston-based market research firm, has tracked the decline in profitability since the beginning of the year. "First quarter profits were 6.8 cents per pound on a cash cost basis for the industry as a whole. Prices have drifted down and feed costs have moved up since the first of April and profits are now about 1 cent per pound," says Mr. Doerr.

COSTS NOT BEING COVERED

He cautions however that cash costs do not include financial costs, distribution costs and general corporate overhead. With these costs included Mr. Doerr figures "(ethylene producers) are not covering offsite overhead and the full cost of ethylene production," at May price levels.

Another analyst doesn't see such a lean picture and puts May profitability, on a cash cost basis, at about 2 cents to 3 cents per pound. He adds however, that ethane, the primary olefin feed, should see stronger pricing in the third quarter and warrant a "passa-long" for ethylene. The analyst predicts that ethane contracts should gain about 3 to 4 cents from their current level of 15 cents per gallon. He says, however, that feeds will remain volatile since it is uncertain what the price of crude oil will do. "I wouldn't be surprised," notes the consultant, "if we saw a 4 dollar per barrel increase in the price of crude oil during the (third) quarter."

Spot prices quoted last week on the Gulf Coast, for the various ethylene feeds, along with their change since late March are as follows: 17 % cents per gallon for ethane; up 1% cents, 26 cents per gallon for propane; up 1 cent, 30 cents per gallon for butane; unchanged, 38% cents per gallon for naphtha; up 5 % cents and 36 % cents per gallon for gas oil down 5 1/2 cents.

Prices for these feeds have been volatile since the start of the second quarter as the crude oil market is fraught with uncertainty. In May spot ethane had been as high as 20

One major buyer, who is skeptical of ethylene producers' difficulties, concedes that feed prices have been unstable but doesn't expect a reversal in the latest downturn in natural gas liquid pricing. "Feed prices should stay down and we don't expect NGL's to increase ethylene costs," says the

While ethylene is not the money loser it was last year, the outlook has changed, especially for chemical producers integrated

less tolerant of marginal operations. San f one analyst, "there will be a lot more presure on marketers to increase cash flow and improve margins. Poor returns on ethylene especially during a period of strong demand will not be sufficient."

Ironically, while observers cite poor b nonexistent profits for ethylene supplien they also point out that supply demand conditions are healthy. Operating rates, according to one analyst "are in the mid-90 perced range," and producers agree that down

PRICES TRENDLINES

WEEK ENDING JUNE 6, 1986

CHANGES/UP

CHANGES/DOWN

ALIPHATICS INDEX

The Aliphatic Organics index reflects the prices of 20 representative materials in this sector and the quantity of each produced in 1985.

June 6, 1986	222 91
May 30, 1986	222.60°
May 9, 1986	722 QA'
June 7, 1985	202.00 203.80

Chemical Prices Start on Page 32.

stream markets, in particular polyethylene de are vigorous. "We expect polyethylene de mand to gain by 5 percent in the second ha of this year," claims one ethylene supplier According to International Trade Commit sion figures, released last week, first quarte output of low density polyethylene was 2.12 billion pounds, a 3.8 percent increase over 12 first quarter of 1985. High density poly ethylene production totalled 1.789 billio pounds, a 6.3 percent increase over find quarter 1985 figures. Polyethylene account

for about 50 percent of ethylene's end uses.
Some producers with large internal need for downstream production may find it est ier to reduce sales if price increases are no gained. Says one of the consumer/supplies "we are consuming a lot of product at increased rate...we would back away from the market if prices don't increase."

A number of observers see the June pro initiative as a "trial balloon" for further firming in the third quarter. Says one and lyst, "the success of the third quarter is crease will depend on the effectiveness of the June move... whatever gain (producers) gets
June will support a hike in July." Some pre ducers may be hedging their bets however, to case the June initiative fizzles. "It is difficult to raise prices in the middle of the quarte! and even harder to do so at the end," says of producer. He says the success of a June price ? hike would be "unusual" but expects it to least dry up softer-priced spot markets and provide a firm basis for the July move.

On the supply side, the startup of Occidental Chemical's 500-million-pound-per-year unit in Lake Charles, La., originally school. In May spot ethane had been as high as 20 cents per gallon while propane reached 29 cents per gallon.

"sometime in mid-June" due to a spate "minor mechanical problems."

Phillips Chemical Co. has successful added 12 million pounds per year of capacity at its Sweeny, Tex., 2.14-billion-poundyear plant as of mid-May. Corpus Christie Petrochemical Co. j

to take an extended turn around at its 1.2 lion-pound-per-year unit early next year. We bil has successfully restarted its 1.05-bills pourid-per-year Beaumont, Tex., unit on N. 25 after a two-week turnaround. Exxon be taking a one-month turn around at its

ALIPHATICS

billion pound per year Baton Rouge, La. fa-cility starting in mid-September.

BUTADIENE - Shell Chemical Company, according to a number of producers, has announced that it will be charging 14c. per pound for butadiene sold after June 2. This effectively lowers the price, by 2c. per pound, from its average selling price in May of 16c. per pound. A Shell spokesman, how-ever, said his company would "decline to confirm or deny" the reported price move.

One producer, commenting on Shell's reported move says "it will be difficult for the rest of the industry to maintain prices (at May levels)." He notes that major butadiene consumers, such as styrene butadiene rubber makers "are not healthy" and will be looking for all the relief they can get.

Sources say that 14c. per pound may be close to the bottom for butadiene prices. Values for imported crude and finished streams are seen by domestic producers as the floor for butadiene values in the US. Recently, material has been moving through Rotterdam at 10 cents per pound according to one source. With a shipping charge of about 31/2c. per pound to the US, one domestic producer says "we've got to be close to the bottom now."

PROPIONATES - Niacet Corporation has revised its price schedules on calcium and sodium propionates, in order to be "fully competitive with regional marketing condi-

tions," according to a company spokesman. Chicago, Ili. has been added to the list of freight equalization points, effective immediately. Other equalization points are Dallas, Tex., Verona Mo., and Linden, N.J.

The company is also offering a 9c. per pound "competitive allowance" on shipments to the West Coast. "The West coast allowance reacts aggressively to pricing offered by Taiwanese imports," according to a Niacet spokesman. Niacet's list price, for truckload bagged

quantities, for both calcium and sodium propionate, is 49c. per pound, f.o.b. Niagara

pany says that its Deer Park alcohol units are running normally after a two week mainte-nance period ended in late May. The com-pany has had production difficulties at the site since last Fall and was forced to put customers on 50 percent allocation since February. Shell would not comment on the present status of its allocation program but one industry source says that the company moved up from 50 percent to 75 percent allo-cations in June, He expects Shell to return to normal deliveries by July.

Until that time, bargeload shipments of alcohols such as n-butanol will be difficult to get. Some customers have had to settle for tank car shipments only during the reduced

Alcohols affected by operating problems at the Deer Park site have been; n-butanol, iso-butanol and 2-ethyl hexanol.

Biotechnology Company Continued from Page 5

and undesirable fatty acids and has no "fishy" odor. Large-scale culture ponds and processing facilities operated in Kona, Hawaii, allow the company to mass produce microalgae so that any desired quantity of EPA can be produced, Cyanotech says.

The company has been producing EPA in pilot facilities at Woodinville, but now wants to mount a commercial-scale operation at the Hawaiian site and is looking for a corporate partner to complete product develop-ment and assume responsibility for distribution. The company is talking with four unnamed major pharmaceutical firms about an EPA project, a spokesman says.

Cyanotech plans to produce algal EPA in two forms; first as a dried algal powder containing approximately 10 percent EPA for over-the-counter sale as a health food, and, second, as a purified oil containing at least 75 to 80 percent EPA.

Procedures for production of the dried 10 percent powder are "pretty well set," the spokesman says, adding that a commercial product could be available by the first quarter of 1987. The company is working on refining its extraction and purification proce-OXO-ALCOHOLS - Shell Chemical Com- dures for the purified product, he says.

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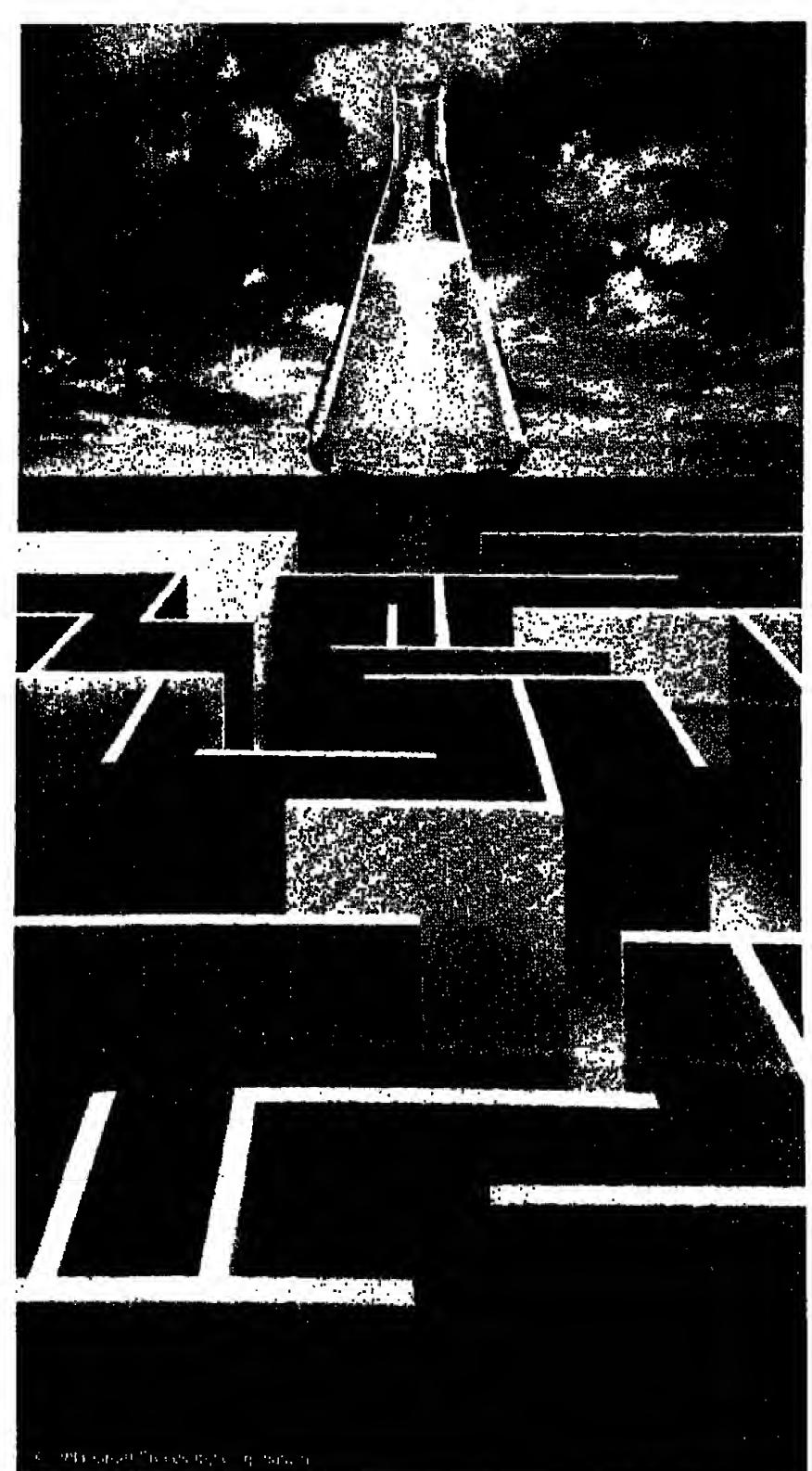
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Sulfur Lease Proposed **By Interior Department**

Interior Department's Minerals Man agement Service (MMS) is requesting preliminary expressions of industry in terest in a proposed sulfur lease sale in the Central and Western regions of the Gulf of Mexico's Outer Continental Self. Comments are also sought on a prelimnary proposal for salt leasing in concer tion with the extraction of sulfur.

MMS director William D. Bettenber noted that there are currently four active sulfur leases in the Gulf, off the Louisian coast but that no sulfur lease sale has been held since 1969.

"A new lease sale is being considered now because sulfur use has outpaced production in recent years and stockpiles are being exhausted at a steadily increasing rate." M Bettenberg sald.

In citing the need to encourage new sully exploration, Mr. Bettenberg said, 'We show act now to prevent a serious shortfall of ad fur in the near future. There is a developing market for new sulfur production and w have the sulfur resources offshore to be supply that market."

Of the three US companies that mine at fur, Freeport, Pennzoil Sulfur and Texasge only Freeport is currently involved in deshore mining.

A spokesman for Freeport said the coppany was "interested" in the MMS request.) addition he said that Freeport is currently the process of reopening one of its offsher

Fluoroelastomer Plant On Stream for 3M Co.

3M Company has brought on stream what it calls the first major fluoroels tomers production facility in Europe # Antwerp, Belgium. In addition, the company signed an agreement with Hoeck AG under which Hoechst will supply ca tain fluoroelastomer latexes to 3M th will be further processed at Antwerp.

The new plant at Antwerp doubles 3M fluoroelastomer capacity to 4,000 tons por year. The company already operates a plat in Decatur, Ala. 3M says the supply arrange ment with Hoechst will enable the company to add another 1,000 tons of capacity Antwerp within a year.

Hoechst, is well along on its program boost "Hostaflon" fluoropolymer capacity its Gendorf, Germany plant which are floor roelastomer precursors. The company plant to double its polytetra (luoroethylene (PTFE) at Gendorf to 7,000 metric tons per year. the same time, the company is expanded tetrafluoroethylene monomor capacity Gendorf and hexafluorpropylene monome

Obituary

Rudolf G. Sonneborn

Rudolf G. Sonneborn, retired chemical and petroleum company executive, died June 1 in Danbury, Conn. He was 87 years old. Mr. Sonneborn started his business career

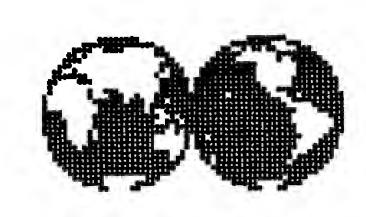
over sixty years ago when he joined what was then L. Sonneborn Sons, Inc., a family-owned petroleum and chemical business, after having attended Harvard University's graduate school of business administration.

Mr. Sonneborn became president of L. Sonneborn Sons in 1953. He was a founder of the Twenty-five Year Club of the Petroleum Industry and also served as president of the Oil Trades Association of New York. In 1955 Mr. Sonneborn purchased an oil company in Israel from Mobil Corporation and renamed it Sonol Israel Ltd., today one of the three leading oil companies in Israel.

In 1960, after a serious illness, Mr. Son-

neborn's company was merged into Witco Chemical Corporation. He became a mem-ber of the board of directors of Witco and remained a director until his retirement in

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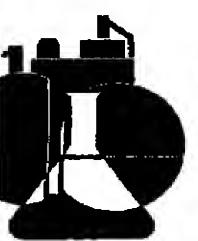
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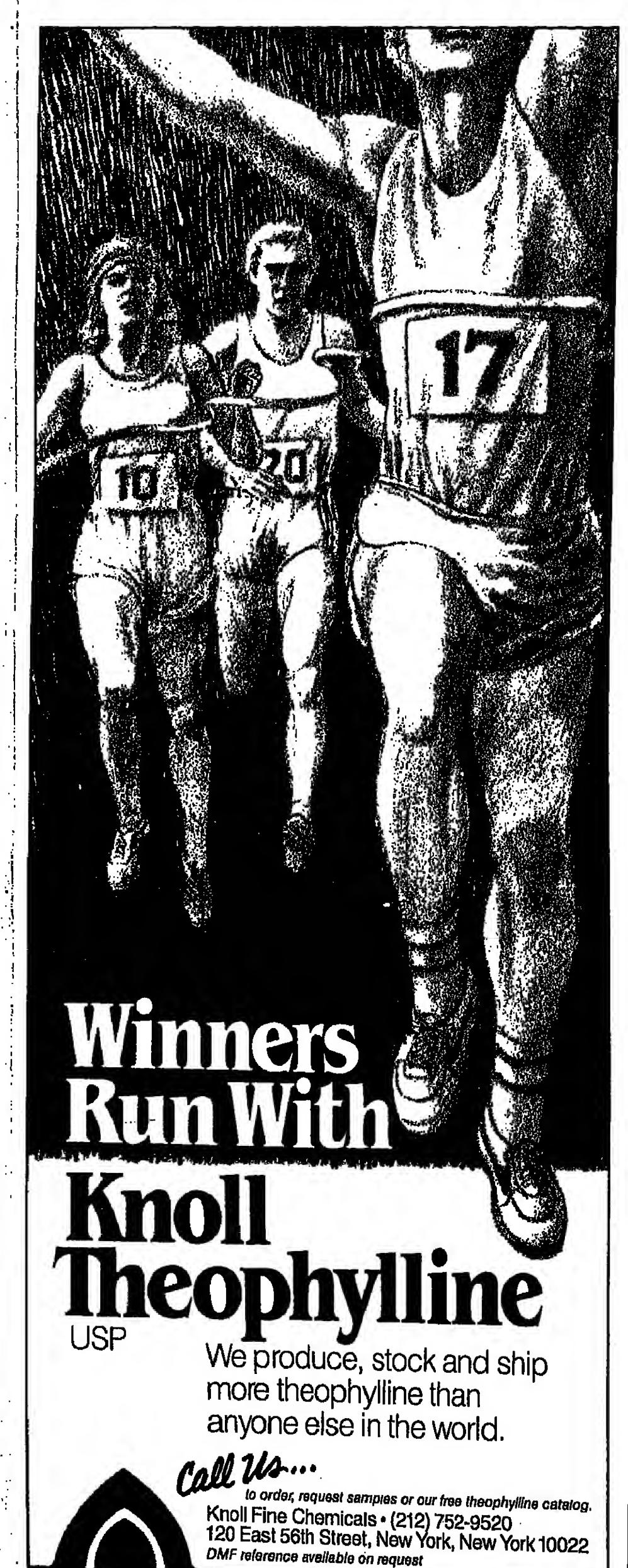
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DRUGS & FINE CHEMICALS

Ephedrine Derivatives Firm As Cold Remedies See Growth

Ephedrine derivative sales have grown strongly during the last year, industry observers agree. They disagree on the outlook for future growth how-

Most industry spokesmen say that pre-dicted growth of about 10 percent has mate-rialized for the primary ephedrine deriva-tives: ephedrine hydrochloride, ephedrine sulfate, pseudoephedrine hydrochloride, and pseudoephedrine sulfate. In fact, one impmorter lays claim to a 20 percent growth.

One of the largest sources, Burroughs Wellcome, comments that growth for "Actifed" has been very good to date. In 1983, Burroughs brought its then-prescription "Actifed" to the over-the-counter market.

If growth does occur, it appears certain that it won't be spurred by the use of ephedrine derivatives as a substitute for phenylpropanolamine hydrochloride in some formulations, such as cold remedies. PPA hcl is being studied by the Food & Drug Administration regarding trace amphetamine content. A ruling was scheduled for February 15. but no decision has been made yet. Despite this, sources unanimously agree that there is no potential growth in this area.

EPHEDRINE DERIVATIVES USED

However, most of the major cold remedles use ephedrine derivatives, particularly pseudoephedrine hcl. "Nyquil" (Richardson-Vicks), "Actifed" and "Sudifed" (Burroughs Wellcome), "Drixoral" (Schering-Plough), and "Co-Tylenol" (Johnson & Johnson) all use an ephedrine derivative as an active ingredient. "Comtrex" (Bristol-Myers) uses PPA hcl, though, and a SmithKline Beckman spokeswoman says "Contac" will use PPA hel when it returns to the shelves.

"Nyquil" has the highest market share (12 percent), while Burroughs' "Actifed" and "Sudifed" are second and third, respectively, combining for a 19-percent market share. These figures are reported by Charles H. Kline & Co. Kline pegs sales growth for cold remedies at about seven percent.

Price increases could come because of increased costs in labor, materials and transportation, say sources. One spokesman says a price increase has been "talked about for quite a while," but that It always comes down to "who is willing to take a chance." Another spokesman thinks Knoll AG's capacity expansion will affect market conditions. By 1987, Knoll, part of the BASF group, will reportedly have a capacity of 700 metric tons, making it by far the largest source of ephedrine derivatives.

epitedrine sulfate, and \$55.50 per kilogran for pseudoephedrine sulfate. An Importer of Chinese material lists prices of \$43 per kilo gram for ephedrine hel, and \$62 per kilogram for pseudoephedrine hel. West Germany, the US and China are the main sources of ephedrine derivatives.

ASPIRIN - Dow Chemical U.S.A., Mik land, Mich., is raising its aspirin prices, effective July 1. List prices of the following prof ucts are being raised 10c. per pound: Aspiri granules, 10 percent starch, \$2.07 per pound

PRICES TRENDLINES

WEEK ENDING JUNE 6, 1986

CHANGES/UP Calcium Pantothanate, \$1 per kilo lodoform, \$1 per ib. Potassium lodide, .80 per ib. Purified lodines, \$1 per ib. Sodium lodide, .85 per lb. Thymol lodide, .50 per lb.

CHANGES/DOWN

DRUGS INDEX

The Drugs & Fine Chemicals index reflects the prices of 10 representative materials in this sector and the quantity of each produced in 1985.

June 6, 1986	211.10
May 30, 1986	211.1
May 9, 1986	211.16
June 7, 1985	211.16
Chemical Prices Start	

aspirin crystals, \$2.05 per pound; and 10 percent aspirin granulation, \$2.15 per pound All terms and conditions will remain the same. A spokesman says the increase repre-

sents strengthening global demand. CALCIUM PANTOTHENATE - Hoffmann-La Ruche, Nutley, N.J., reports the latest in a series of industry-wide B-vitamin price increases. Effective immediately, the company's d-cai-pan price will be \$11.50 per kllogram, up from \$10.50 per kilogram BASF Corporation raised its price May 16 (CMR, 5/26/96, pg. 16).

A Hoffmann-La Rocho spokesman saystle increase is because of depressed prices dur ing the last two and three years. Prices for other B-vitamins, such as pyridoxine by F drochloride, thiamine hydrochloride and th Knoll lists the following prices: \$40.25 per amine mononitrate, have also been increase kilogram for ephedrine hel, \$45.25 for lng recently. All of these products are said to

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DRUGS & FINE CHEMS

be returning to levels of the early 1980's.

IODINE PRODUCTS — Mallinckrodt, Inc., St. Louis, reports that effective June 1, it raised its prices for several lodine products, because of recent increases in crude iodine

prices (CMR, 5/19/86, pg. 21).
Potassium iodide has been raised by 80c. per pound, up to \$12.05 per pound. Sodium lodide now costs \$17.19 per pound, a hike of 85c. per pound. Purified iodines were increased by \$1 per pound, up to \$17.62 per pound. Also, two specialty iodines were increased. Thymol iodide now costs \$57.20 per pound, an increase of 50c. per pound, and iodeform was relead by \$1 per pound, and iodoform was raised by \$1 per pound, up to:

All price increases apply to both list and discounted-list prices. Current customers have been given 30-days' price protection.

POTASSIUM BENZOATE — American

International Chemical, Inc., Natick, Mass., is now offering potassium benzoate in flake and dense form, according to a spokeswoman for the company.

She notes that potassium benzoate is being widely used as a replacement for sodium benzoate in applications in which low sodium content is needed, such as in some food appli-

The spokeswoman stresses that AIC will still be providing sodium benzoate, and that the company is not making a complete switch to potassium benzoate. The product is kept in Totowa, N.J., Chicago, and San Fran-

The material is priced at 91c. per pound for flake, and 97c. per pound for dense.

THIOGLYCOLIC ACID AND DERIVA-TIVES — The Evans Chemetics Unit of W.R. Grace & Co. reports it is raising prices for thioglycolic acid and several derivatives, ef-

Thioglycolic acid, concentrated, will increase by 19c. per pound, to \$2.07 per pound. Thioglycolic acid 80 percent solution is increasing 15c. per pound to \$1.69 per pound. Also, ammonium thyioglycolate will increase by 12c. per pound to \$1.36 per pound, and glycerol monothyloglycolate is increasing 19c. per pound to \$2.13 per pound. A spokesman notes that there are other in-creases as well, but these are the major prodncts that will be affected.

This is the first price increase in four years for these products, says the spokesman. He adds that a price increase was attempted late last year, but never materialized.

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DRUG & FINE CHEMICAL EXPORTS: MARCH

BUREAU OF CENSUS FIGURES ON THE KEY DRUGS.

		M	ARCH	PERI	YHAUF
Antible	tica:	QUANTITY	\$ VALUE	QUANTITY	\$ VALUE
Amp Ervt	ricillin and salts, bulk gms.	476,415	636,036	17,074	537,050
, 4, ,	hromycin	77,608	7,493,665	69,396	9,035,093
		3,432,667	261,970	685,408	276,513
		168,169	7,041,847	141,954	4,195,401
Aspirir	e and dorfu	3,083	1,607,294	1,551	2,002,740
1		468,108 109,264	650,227	296,460	403,551
Order	gid.,ibs.	386,326	177,314	19,127	50,162
Hormo	mdioide diff fidile * * * * * * * * * * * * * * * * * * *	835	463,534 130,600	1,138,761	775,335
	laa.		100,000	2,400	291,935
None	iterald hormones	3,205	5,460,722	6,631	11,025,825
			1,320,375	2,740	1,072,279
	er in in in the second and the second se	6,179	5,528,728	4,986	7,298,235
Sulfora	imides, bulk	168,009	5,393,395	286,247	4,263,153
Vitamir	18:	58,389	669,623	122,611	1,548,834
ASQU	orbic Acid	122,229	ERS NOA		ning 668.7
Vita	nin A and Pro-vitemin A, bulk ibs.	127,339	563,203 163,212	80,177	38 965
Vitar	nin E	16,430	170,054	70,474 110	2 025
Viter	nin 8, (thiamine)	36,940	733,449	104,580	1,448,077
i Dan	a particular and the second se	18,460	35,705	189	5.4902
		2,205	18,710		
Viter	nins, nepf	54,041	131,595	49,256	108,050
		100,862	736,725	144,777	465,1013

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June 9, 1988 CHEMICAL MARKETING REPORTER

CHEMICAL MARKETING REPORTER

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CHEMICAL MARKETING REPORTE Plate to be and a street of the last the

Operated by the newly formed joint venture firm, C.A. Lubricantes Quimicos, L.Q., the facility brings to 17 the number of Lubrizol specialty chemical plants in operation.

Lubrizol Corporation, Wickliffe, Ohio, has formally dedicated a Venezuelan specialty chemicals manufacturing facility constructed in joint venture with Corporacion Grupo Quimico, C.A.

Operated by the newly formed to the Venezuelan petroleum industry.

C.A. Lubrical The plant will manufacture high-technology additives for gasoline and diesel engine oils and gear oils, as well as viscosity improvers and high molecular weight dispersants to be supplied to the Venezuelan petroleum industry.

Speaking at dedication ceremonistie in San Diego dispersants to be supplied to the Venezuelan petroleum industry.

Speaking at dedication ceremonistie in San Diego dispersants to be supplied to the Venezuelan petroleum industry. Speaking at dedication ceremonies at the site in San Diego de Valencia, West of Caracas, L.E. Coleman, Lubrizol's chairman, said the new manufacturing plant "introduces a major advance in the production and supply of specialty chemicals to the Venezuelan oil

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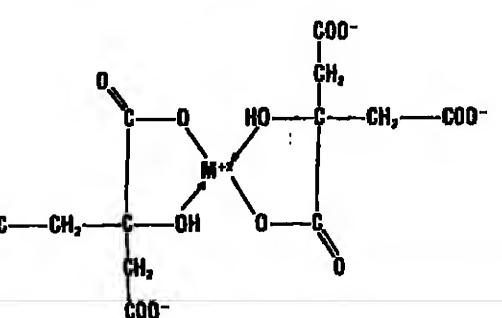


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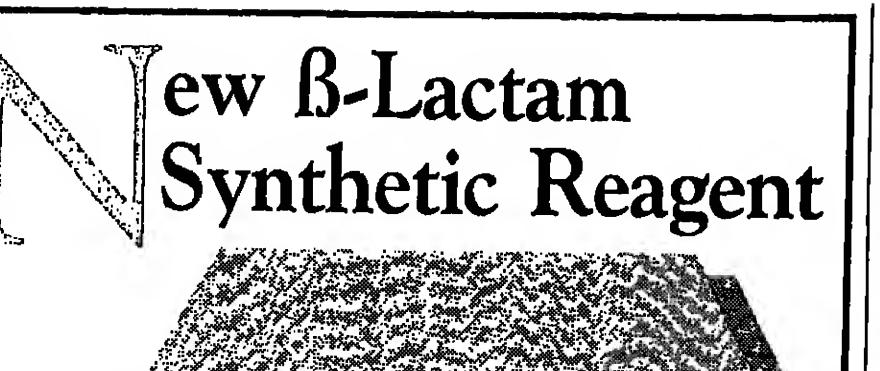


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Sulfite Labeling Continued from Page 7

some steps need to be taken to protect the sulfite-sensitive consumer.

The report said FDA's proposal to require labeling of sulfites in packaged foods that contain significant residual levels may be unreasonable since current analytical meth-

ods are inaccurate at low levels. The researchers sald the label declaration limit could be raised to 25 or 50 ppm without putting sensitive consumers at any greater risk. They concluded that banning selected uses of sulfites is not justifled with the possible exception of the direct use of sulfites in restaurants where most of the severe reactions have taken place.

The search of alternatives to sulfite should be continued, Dr. Taylor told a Washington news conference.

"Given the small number of individuals identified as sulfite-sensitive and potential severity of the reactions, label declaration and restricted bans of unlabeled and poorly controlled uses of sulfites sould be sufficient means to allow avoidance of potentially haz-ardous, sulfited foods," he said.

An overall ban of sulfites in foods "does not appear warranted," Dr. Taylor added.

Sulfites are used in many foods and beverages, IFT points out, with the highest total levels occurring in dried fruit (excluding dark ralsins and prunes), non-frozen lemon and lime juice, wine, molasses and sauerkraut julce. Drled potatoes, grape julces, wine vinegar, gravies, sauces, fruit toppings and maraschino cherries are also modest sources.

Pectin, fresh shrimp, corn syrup, pickles and relishes, starch, hominy, frozen potatoes, maple syrup, jams and jellies (Imported only) and fresh mushrooms also typically contain sulfite at amounts at or above FDA's labei triggering level triggering level.

Most people's body chemistry metabolizes sulfites by means of an enzyme, sulfite oxidase, and the product is excreted as harmless sulfate. This is true whether the sulfites are consumed or inhaled.

Most persons can safely consume substantial quantities of sulfites without consequences, and even some sulfite-sensitive people can ingest 100 to 200 milligrams without

"However, the more sensitive individuals (5-50 mg thresholds) can easily obtain a provoking dose of sulfite in a single meal," the IFT report says.

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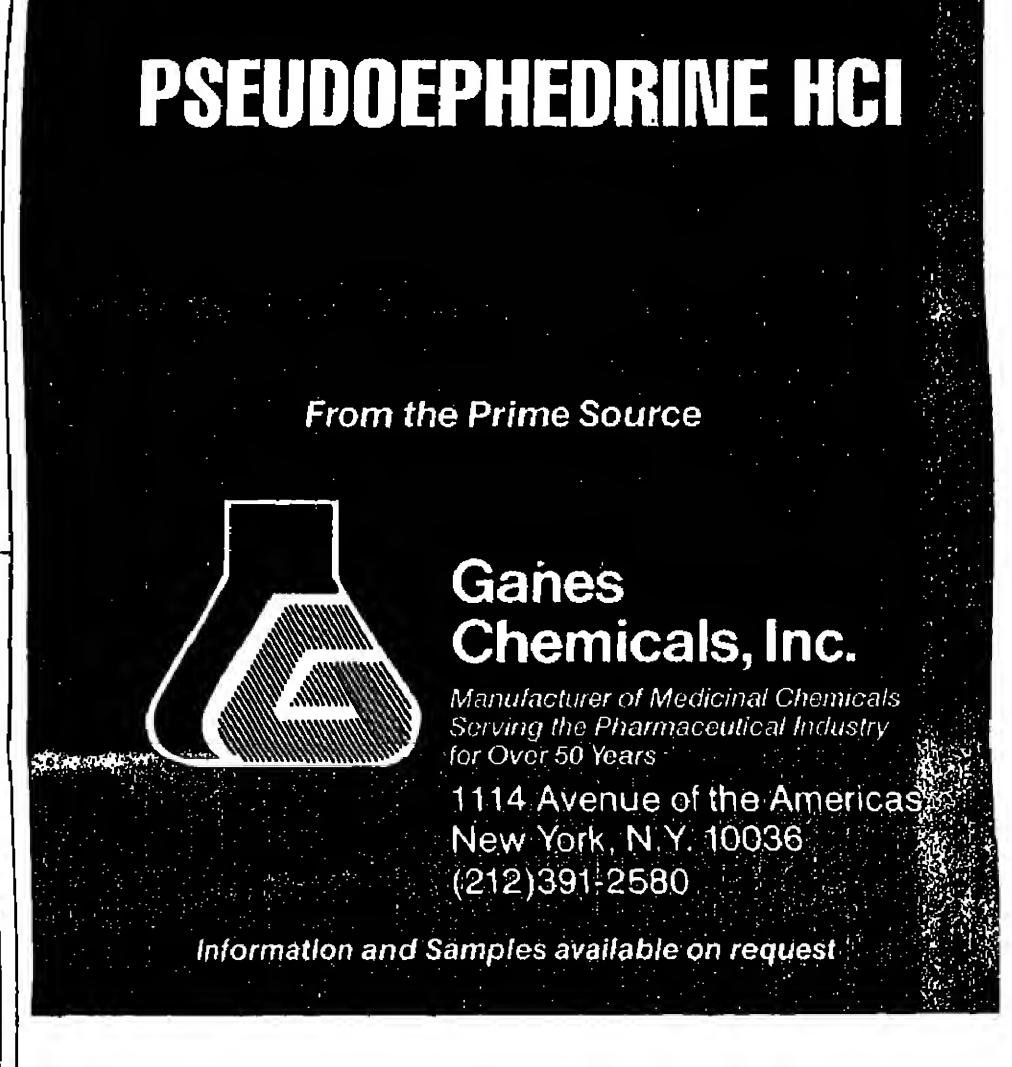
Du Pont Company Exits Heat Exchanger Business

E.I. du Pont de Nemours & Co. has sold its "Teflon" heat exchanger business to Ametek Inc. Du Pont did not disclose terms of the sale, which includes product and manufacturing technology and dedicated equipment, but said it will not materially affect its earn-

"Teflon" heat exchangers were developed for heat transfer in corrosive operations. Primary markets for the heat exchangers include pickling operations in the metals and steel industry, metal plating in widely diverse industries, and corroslve operations in the chemical industry.

Dow Sells Millipore Stake

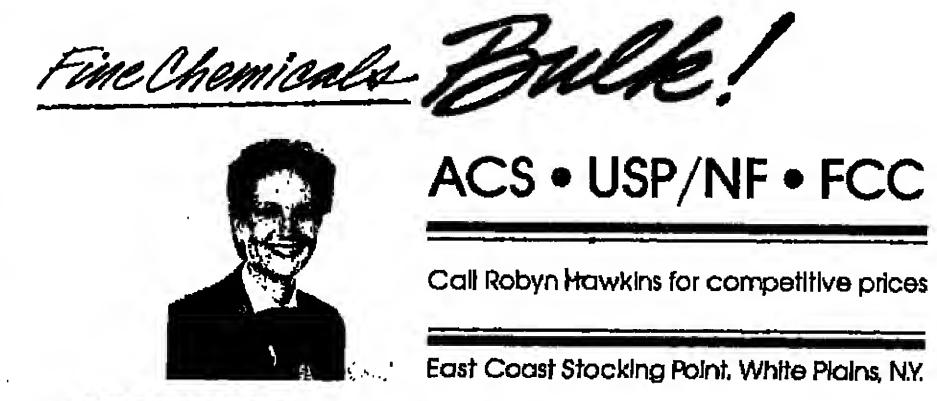
Dow Chemical Company has sold its total holdings in Millipore Corporation through Smith Barney Harris Upham & Co. and Alexander Brown & Sons, Inc. Dow reported in 1984 that it had purchased approximately 9.3 percent of the outstanding shares of Mil-



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June 9, 1988



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DuPont Sets Continued from Page 3

"Hytrel" polyester elastomers from Du

Pont-Toray, a joint venture.

"It is a primary goal of ours to market our technology and expertise internationally," Mr. McAndrews, says "and we believe our new organization will greatly facilitate our

The new department will initially be comprised of segments from existing Du l'ont de-partments including polymer products and finishes and fabricated products.

Mr. McAndrews says the new departmen Is a major step in a series of recent actions to strengthen the firm's commitment to the automotive Industry.

Earlier this year, Du Pont signed an agree-ment to purchase the Ford Motor Company's North American automotive paint opera-tions, and opened a multi-million-dollar technical service laboratory in Troy for the development of thermoplastic autobody parts. Later in 1986, the company will open a full-

scale state of the art coatings application laboratory in Troy.

Chemical companies have continued to enlarge their technical service and development facilities in the Detroit area in an effort to forge closer links with their customers.

Within the last month, for example, Ciba-Geigy Corporation opened a \$3.5 million marketing, development and technical secvice center in Madison Heights, Mich. and Mobay Chemical Company dedicated an expansion of its automotive headquariers of fices in Troy, Mich.

BASE Import will complete a \$15 milion of the construction in the complete a \$15 milion of the construction of the constructio at Southfield, Mich at the end of this month for start-up in the third quarter which will duplicate the workings of an auto plantar handle full-sized car and truck bodies

In April, the company introduced a new line of water borne base coatings which with solvent-borne clear coats, will be the and motive coatings of the future, BASF Inner

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HEAVY & AG CHEMICALS

American Chrome and Diamond Raise Chrome Chemical Prices

US producers of sodium bichromate and chromic acid are raising prices this month, and indications are that the increases will hold. Working in their favor are a plant shutdown by one overseas producer, the decreased value of the US dollar, and generally depressed price

American Chrome & Chemicals and Diamond Shamrock have hiked chromic acid five cents per pound and sodium bichromate three cents per pound. Chromic acid moves to a list level of \$1.08 per pound while bichromate will remain at 57 cents per pound for crystals, 52 cents per pound for solution, the increase being for off-list prices.

American Chrome's increase was effec-

tive June 1 (CMR, 5/12/86, pg. 26) while Diamond Shamrock's was effective May 19 for spot customers and June 18 or as terms permlt to contract customers.

Pre-hike selling prices for large buyers of both items, however, are reported to be much lower: in the 35- to 40-cent-per-pound range for crystalline sodium bichromate and from 85 to 90 cents per pound for chromic acid.

Understandably, US producers and importers alike feel the Increase is much needed. Observers say that US producers have kept their prices very depressed for the last several years to discourage import com-petition, which was almost non-existent five

Nevertheless, imported material seems to be here to stay, despite the depressed pricing. The major overseas players in the US market are Bayer AG, Kromsan of Turkey, British Chrome, Luigi Stoppanl SpA of Italy and the Soviet Union. All told they account for approximately 10 percent of the US chrome chemical demand

ITALIAN FACILITY SHUT

Sources say that price increases in Europe as well as changes in the value of the dollar with respect to European currencies have put upward price pressure on overseas material. This phenomenon does not effect USSR and Rumanian product, however.

Bureau of Census figures show that through March blchromate and chromate imports from USSR are about one-half mlilion pounds, almost twice year-earlier level, despite claims by others in the industry that the material is of inferior quality.

To justify the price like, producers and importers alike point to the shut-down, ear-lier this year, of Stoppani because of pollution problems. Sources say Stoppani had been on and off since January and is now down

Bureau of Census figures imply that the effect of the shutdown has been mostly on chromic acid. Italian imports through March are under 400,000 pound, less than half the corresponding figure for 1985. Imports of sodium chromate and blchromate, however, have increased from about one-half million pounds to over two million pounds for the corresponding through-March periods.

According to a source at White Cross Laboratories Inc., the exclusive distributor for Stoppani in the US, Stoppani says that it has Inventories of blchromate crystal to last over a year, so that these supplies should not pose

Biochromate solution, says White Cross, is well stocked in the US, although shipments from Italy are not expected until the end of the year. Chromic acid is not well stocked here on the Italy and the Italy and the Italy and here or in Italy but shipment is expected to restart by the middle or end of the Summer.

The Stoppani shutdown has provided at least a temporary new market for US material. Through March amost one million pounds of chromic acid, one-quarter of all acid exports, have been shipped to Italy from Diamond Shamrock's plant. No exports to Italy occured in 1985 until December.

In general, chromic acid demand is said to be stronger than bichromate demand. Wood treatment continues to grow, producers say, \$760 per metric ton.

especially as the high demand Summer approaches. Opinions about metal treatment vary, with one producer claiming that Detroit's recent upswing in auto production has helped and the other saying it hasn't.

Sodium chromate demand is still in the

doldrums, according to sources. In addition to long standing poor sales to the leather tanning, pigments and water treatment businesses, use in oil drilling muds has of late dropped considerably, as the number of US oil rigs is at a long-time low.

One change that is sure to affect the domestic business is the impending sale of Dia-

PRICES TRENDLINES

WEEK ENDING JUNE 6, 1986

CHANGES/UP

CHANGES/DOWN

HEAVY & AGINDEX

The Heavy & Ag Chemicals index reflects the prices of 18 representative materials in this sector and the quantity of each produced in 1985.

Charles Deleas No.	d De 00
June 7, 1985	113.69
May 9, 1986	
May 30, 1986	113.69
June 6, 1986	113.69

mond Shamrock's chemicals business to Oc-

cidental Petroleum. While Oxy's plans for the chrome line are not clear, one observer points out that, in the meantime, Diamond is likely to act for the short-term only.

In fact, most observers feel Occidental has little use for the business and will probably try to resell it.

One source cites a rumor that Bayer, the world's largest producer of chrome chemicals, has placed a bid with Occidental for the

BASES & SALTS

CHLORALKALI — Following Dow Chemicals' lead (CMR, 6/2/86, pg. 28), several chloralkall producers have announced price increases. For chlorine, LCP Chemicals & Plastics has gone up \$25 per ton, Occidental Chemicals has gone up \$15 per ton and Vul-can has gone up \$10 per ton. In addition, all three producers have increased caustic soda prices \$10 per ton for all grades.

For all, prices are effective immediately on spot purchases and as terms allow for contract business. Prices are freight equalized with recognized competitive producing

Also, producers say that upon reauthoriza-tion of superfund, the tax will be added as a separate line Item to each involce.

Producers cite high operating rates and strong demand, especially in the North, as justification for the hike. According to the Chlorine Institute, April effective operating rates were 89.4 percent, the highest level in over two years.

Chlorine price initiatives in January and April have been for the most part successful, particularly the latter one.

According to one source, selling prices in the Gulf to the VCM market have increased from the low \$120's in January to up to \$145 per ton in May.

METALS & MINERALS

ZINC - Falconbridge Ltd. announced last week that, effective immediately, for sales outside North America, the base selling prices for "Kidd Creek" brand zino metal has been increased to \$800 per metric ton from

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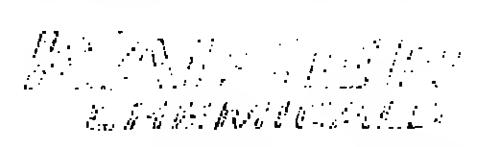
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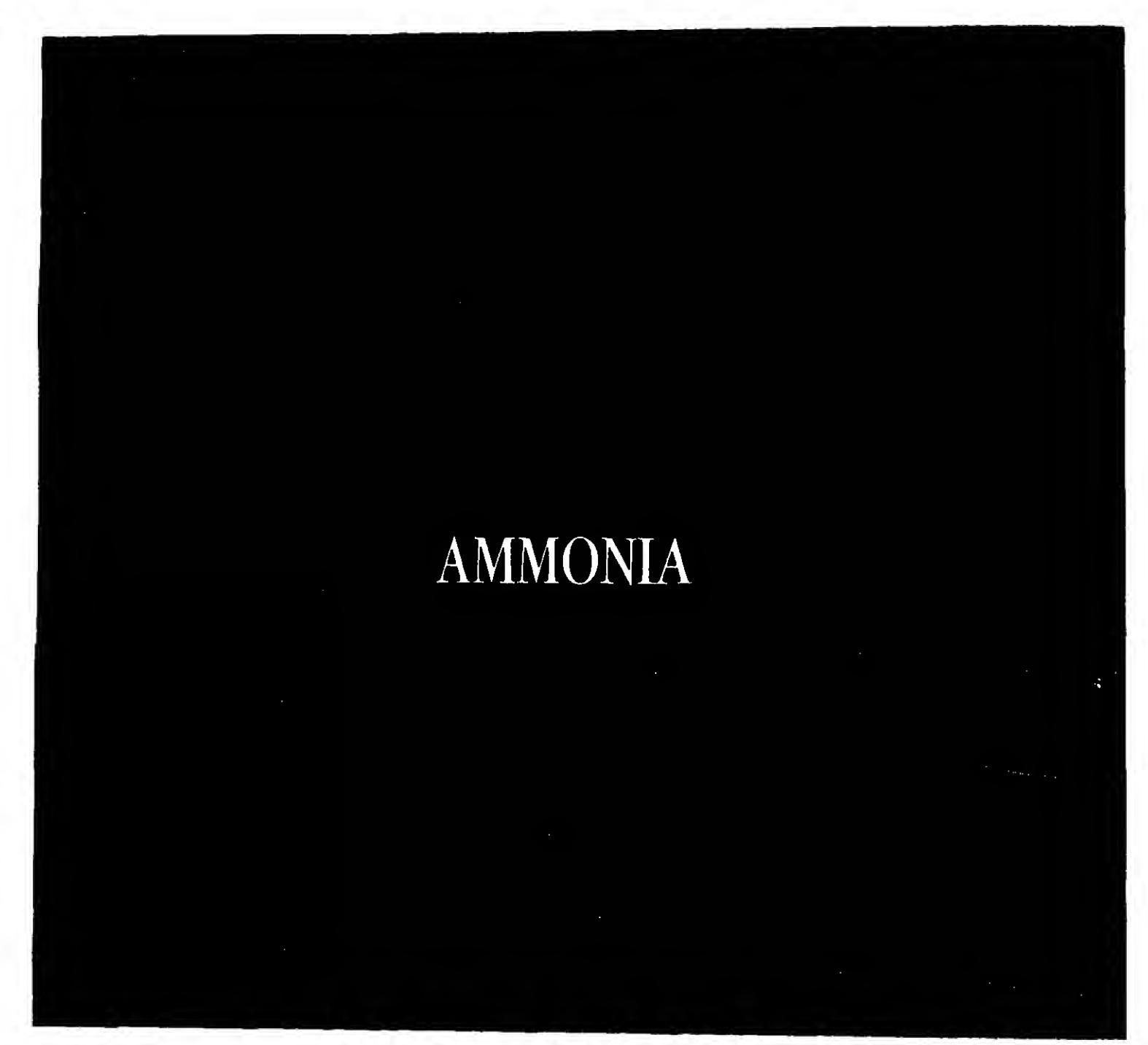
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COATINGS & PLASTICS

PVC Producers continued from Page 4

fill orders domestically, commit their surplus to the export market up to two months in advance.

VCM exports climbed over 377 million pounds in the first quarter this year, which is equivalent to 1.5 billion pounds annually. Last year, US exports just exceeded 1 billion pounds. Observers say plant turnarounds in Taiwan and Korea has caused this sharp rise in overseas orders.

These two developments, sources say, deprived PVC makers from being able to turn out as much resin as they would like, which has ied to tighter PVC supplies at a period of high demand, hence the push for higher

Even with a successful June increase though, PVC prices would only return to April levels. According to one source, resin prices slipped last month, because PVC pipe makers, the largest resin consumers, resisted buying resin at 30 cents per pound, mainly because pipe prices were weak and business was singuish. business was siuggish.

An industry observer recounts that pipe inventories soared early in the year when pipe makers bought large quantities of resin prior to a PVC price increase, and demand for PVC pipe got off to a slow start. Society of Plastics Institute figures show that pipe and tubing consumption of PVC resin in the first quarter sagged 8 percent below 1985 levels. In this weak market, a source says, pipe makers were abie to push resin prices down.

SOARING PIPE DEMAND

At present though, the shoe is on the other foot. The construction market is booming throughout the country, PVC plpe demand is soaring, pipe and resin inventories are falling, and pipe makers are buying large quantities of resin. The 2 cent June increase stands a good chance of holding, an industry observer says, if the pipe market continues to run strong through its traditional Summer "plant holiday" period. If demand prompts pipe makers to run though July and August, the observer says at least part of the resin increase should stick.

Another factor pressuring PVC prices, producers say, are rising prices for feedstocks ethylene and chlorine. Ethylene producers are seeking 1 to 2 cent per pound price increase for June and a similar increase for July. At the same time, chlorine makers are pushing price increases of \$15 to \$25 per ton for July, which foilows a generally successful increase posted in April. Chlorine prices have already climbed from \$120 to \$145 per ton on

the Gulf Coast this year.
VCM prices, meanwhile, remain at 15 to 16 cents per pound for the time being. However, if the PVC increase sticks, one VCM producer says he'll try to push through the April 1 VCM 2 cent per pound price hike which was largely

PLASTIC MATERIALS

POLYSTYRENE — Several more firms have joined a move to raise polystyrene resin prices. Reacting to increases in styrene monomer prices, Huntsman Chemical Company, Dow Chemical Company and Monsanto Company earlier announced price increases for crystal and impact grades, effective July 1 (CMR 6/2/86, pg. 30). Dow raised prices 3c. per pound, and Huntsman and Monsanto raised prices 2c. per pound,

In a related move, Dow also announced a 4c. per pound increase for "Styron" ignition

THERMOPLASTICS

BULK PRICES IN MAY

(US \$) .2628 .2426 .2526	(US \$) .2831 .2529 .29	
.2832 .3032	.317433	
	.2628 .2426 .2526 .3336 .2832 .3032	.2628 .2881 .2428 .2529 .2526 .29 .3336 .3935 .2832 .31½33 .3032 .2630

resistant polystyrene precolored black grades, and 3c. per pound for natural grades, effective also on July 1.

The Cosden Division of the Fina Oil & Chemical Company has joined the initiative with a 3c. increase in selling prices for ali grades of polystyrene resins, effective July 1. Polysar Inc. has announced a similar increase. Chevron Chemical Company and Mobil have raised prices also.

A spokesman for a polystyrene producer asserts that margins for the resin have been under pressure due to rising feedstock costs over the past few months. He concedes that

PRICES TRENDLINES

WEEK ENDING JUNE 6, 1986

CHANGES/UP

CHANGES/DOWN

COATINGS INDEX

The Coatings & Plastics Index reflects the prices of 13 representative materials in this sector and the quantity of each

June 6, 1986	306.4
May 30, 1986 May 9, 1986	
June 7, 1985	
Chemical Prices Ster	t on Page 32.

feedstock costs had declined in January, but points out that resin prices eroded then also

While costs "are always a factor in making a decision," according to a spokesman for another supplier, the current supply and demand situation also plays a role. He reveals that the industry is currently running very close to capacity. "We are sold out and have been for a while," says still another spokesman. He says that his company is tight on both impact and crystal grades, and adds that "nearly everyone else is too."

He continues that demand prospects for this Summer look bright. His customers report strong business and may aiter their typical Summer production schedules, which would include shutdowns for vacation in July. The resin supplier says that some converters are running hard in June in order to build inventory to see them through July shutdowns, while other resin users intend to shut down for a shorter than usual period.

ZINC OXIDE - Pacific Smelting Company has raised its list prices by 4c., effective June 2. The move, which raises the list price for activation grades to 49c. and the list price for French process grades to 50%c. per pound, brings the company's list prices into line with those of most other major zinc oxide

A company spokesman attributes the increases to firming zinc metal prices as well as to general strength of the oxide market. He relates that zinc metal firmed twice in May, and increased in price by a total of 5c. per pound in that month.

The base value of raw material for oxide is tied to the metal market, the spokesman says. He notes that the current metal situa-

tion "is tightening up the whole picture."
Several other producers said last week that they had made no announcements of increased list prices, and noted that the Pacific Smelting move brings the company up to levels already posted by other produc-

One competitor notes, however, that there has been a strengthening in the marketplace. He says demand is strong currently, and the Summer months won't produce much of a lull. Demand is up by "a couple of percent" over year-to-date figures from last year, he estimates, and he speculates that the full year could see similar growth compared to

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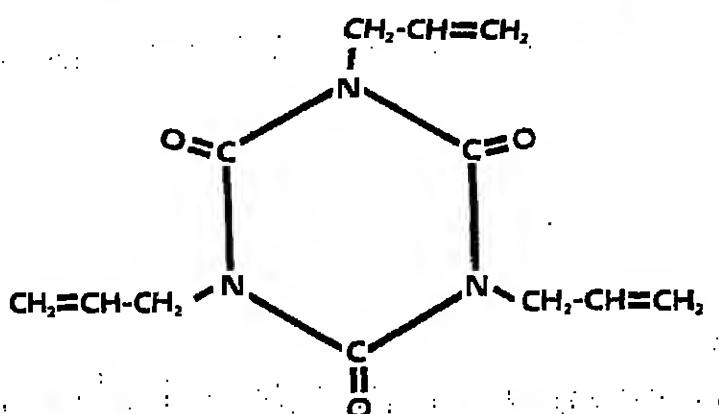


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CHEMICAL MARKETING REPORTER

mint oils indicate some growth in anticipated Midwestern peppermint oil production while some carryover inventories from last year are down substantially from the previous year, particularly in Willamette and Midwestern grades.

Some traders voice concern over very dry weather in the Far West which will affect farms dependent on reservoirs for irrigation. However, caution is still prevalent, and predicting any market changes because of this development is considered premature. "It's kind of early to draw rash conclusions," says a Far Western oils source. The dry weather would exert the greatest effect on Yakima grade peppermint and Far West Scotch and native spearmint oils.

Midwestern peppermint growers reportedly experienced a relatively mild setback earlier this year due to "some dryness and wind conditions" which ripped out some plantings. The market is up slightly, with some contracts being written at \$14 per pound, sources report.

CARRYOVER SUPPLIES ASSESSED

"The lack of moisture doesn't bother me," says a Midwestern oils trader, who cites experience with better oil yields after hot weather. Crop conditions are curently characterized as average, having stabilized after the early setbacks, and market movement is described as slow.

"Willamette is getting expensive, going up and up," says a New York essential oils broker. Increased preference for Willamette has been cited in the last six months, which has affected demand

Spot and contract levels are quoted at \$11 per pound by Far Western trader; a Midwestern trader says \$12 or \$13.50 levels would be more accurate.

Carryover supplies were estimated down about 450,000 pounds this year, to about 185,000 pounds. "Not much inventory is available," says one trader, "carryover supplies were definitely dwindled into" during the interim season.

This market is characterized with some degree of inconsistency, with sources reporting increased demand but that farmers are having difficulty commanding higher prices.

"We've reached a stalemate," says a Willamette Valley source. "Very few growers were willing to accept contracts at \$11, but the market is expected to remain at that level, possibly to go a bit higher," the source

Crop conditions for 1986 in Willamotte grade are described as average, but some growers had had to treat fields with more than usual amounts of pesticides, which will affect costs, but not supplies.

Madras grade peppermint oil is described in very short supply, and yields for 1986 are expected to be lower than last year. Another source reports few inquiries for this oil, adding that when the Madras price becomes comparable to Midwestern, which is regarded as higher quality, substitution tends to occur.

Spot and contract figures are down by

PRICE HIGHLIGHTS

PERFUMES IN MAY PEPPERMINT 2/24/66 \$9.50-\$10.50 Madras.....\$13-\$14.50 \$14-\$14.50 Midwest.... Willamette \$11-\$13.50 Yakima,.... \$8.50-\$10.00 SPEARMINT Far West, native \$10.76-\$11.50 \$10.78-\$11.50

PERFUMES & FLAVORINGS

Peppermint Oil Inventories Down; Midwestern New Crop Acreage Up

New crop acreage figures for 1986 3,000 acres and carryover stocks up over 100,000 pounds, a Far Western source reports. Spot and new crop prices are quoted at \$7 per pound, with moderate movement of oil, according to one source. "Prices will remain depressed for some time," this observer concludes.

AROMA CHEMICALS

BEAVER CASTOREUM — This specially recently experienced a \$10-per-pound price reduction, according to one aroma chemical

PRICES TRENDLINES

WEEK ENDING JUNE 6, 1986

CHANGES/UP

Caraway seed, Dutch rect., 10c. per lb. Dill seed, Indian dewhiskored recl., 2c. per lb. Fonnel seed, Egyptian, 3c. per lb. Fennel seed, Chinese light, 3c. per lb Fonnel seed, Turkish oxtra, 3c. por lb Laurol Ionvos, Turkish somi-solect. 4c. per lb. Laurej jeaves, Turkish hand-picked in cins, 10c. per

Nutmeg, East Indian record. Dutch, 10c. per lb. epper, Muntok white, Sc. per Ib. Pappor, Brazilian white, 20c, per lb.

CHANGES/DOWN

Allspice, Central American, 2c. per lb. Annatto seed, Indian very limited, 10c. per lb. Cardamoms, Indian bleached, 10c. per lb. Cinnamon, H-2, 5c. per lb. Cloves, Madagascar/Brazil, 5c. per lb. Cumin sood, Turkish, 2c. per lb. Fennel seed, Indian NPNS, 4c. por lb. Ginger, Jamaican No. 3, 30c. per lb. Onlon, chopped, 7c. per lb. Pepper, Malabar black, 1c. per lb.

PERFUMES INDEX

The Perlumes & Flavorings index re flects the prices of 11 representative materials in this sector and the quantity 2801 ni bailanue daga ta

o agai supplied il 1909.	
June 6, 1986	71.0
May 30, 1986	71.
May 9, 1986	714
June 7, 1985	

Chemical Prices Start on Page 32.

broker. He cites lower prices quoted at Canadian fur auction which periodically trades beaver castoreum.

SEEDS & SPICES

NUTMEGS — After plateauing at \$2.69 per-pound levels, East Indian reconditioned Dutch grade spice leaped forward again, last week to \$2.70 per pound.

"Nutmegs flared up again this week, as all offers advanced on some good demand comments one broker. Mace has not yet for lowed suit.

OREGANO — In the wake of 10c. to 15c. increases in pricing recorded two weeks ago. Mexican oregano is characterized as being in short supply until Winter, according to one spice broker.

However, "offers for new crop Turkish oregano are not yet attractive enough to 18 vive demand from here." this broker.00

Turkish 30 mesh oregano is quoted at 70% per pound; Greek 30 mesh, 93c. per pound Mexican extra fancy, 90c. per pound; Morot can, 62c. per pound.

CASSIA - "Resellers continue to offe shipment and afloat parcels below replace ment," says one spices source regarding the Indonesian cassia market, adding, "origin b unable to sell at its levels.

Korintiji A cassia is quoted between and 92c. per pound; Korintji B, 70c. to per pound. "Sales of Chinese Tunghing will also put pressure on Padang," says to

US imports of chemicals and related materials are reported in this section by CPI masterial. Listings include consignee where possible, container, net weight, name of vessel (in parenthesis), port of origin and date of shipment's arrival in New York or the Port of Newark.

US chemical imports/exports are tabulated monthly in the market reports.

A L ZINC BACITRACIN A L Laboratories 800 bgs (41,039 Iba) (Kazimierz Pulaski) Bremerhaven, 5/5. ABS RESIN Goldmark Plastic Compounds 840 bgs (48,648 lbs) (American Marketer) Busan, 4/25.

ACETANILIDE Løyden Customs Expediters 320 bgs (35,626 lbs) (Hoegh Carrier) Bombay, 4/18. ACETYL PARAMINOPHENOL Rhons Poutenc 360 dms (43,294 lbs) (Atlantic Service) Le Havre, 4/29. ACID Three V Chemical 126 dms (38,889 lbs) (TFI Franklin) Bremerhaven, 6/5. ACID TARTARIC Tarterio Chemolais 400 bos (44,974 tos

(Argonaut) Genoa, 5/5. AGAR AGAR Chart 30 dms (3,638 lba) (Japan Ambrose) Nagoya. 5/4. ALCAPARRADO Goya Foods 2,344 cs (45,814 lbs) (Sea

Land Leader) Algectras, 5/8. Gove Foods 2,348 cs (89,436 lbs) (Argonaut) Cadiz

ALKYL SULPHONIC ACID HARDENER Ploneer Plantics 4 drns (1,940 |bs) (Dart Altantica) Bramerhayen, 5/6. ALUMINUM NITRATE 9 HYDRATE Order 40 dms (4,620) lbs) (TFL Franklin) Bremerhaven, 5/5. ALUMINUM OXIDE Norton 115 mix (78,759 lbs) (Dart Atlantica) Bremerhaven, 5/6. AMINO 5 NITROBENZOIC ACID Janel Inti Fwdra 227 pkg

(25,163 lbs) (Stuttgart Express) Rotterdam, 4/29. ANILINE COLOR Order 325 dms (22,368 lbs) (Stuttgart Express) Greenock, 4/29. ANILINE DYES Mobay Chemical 148 dma (15.421 lbs (Stuttgart Express) Rotterdam, 4/29. ANISE ESSENTIAL OIL John D Walsh 6 dms (2,425 tbs)

(Italica) Valenda, 5/5. o-ANISIDINE, PURE Janel Intl Fwdrs 91 dma (44,537 lbs) Stuttgart Express, Rotterdam, 4/29. ANTIHALO DYE ACID VIOLET 520 PIN Order 20 dms 1,256 (ba) (TFL Franklin) Bramerhaven, 5/6. BAYFERROX Leschaco 3,200 bgs (166,791 lbs) (Stuttgart Express) Rotterdam, 4/29 BENZYL ALCOHOL FR Janel Intl Fwdrs 72 dms (34,603

Ibs) (Stuttgart Express) Rottardam, 4/29. BENZYL BENZOATE Metro Oil & Chamical 39 dms (17,196 lbs) (E R Brussel) Rotterdam, 5/5. BETA PINENE EL Scott 130 drus (58.248 lbs) (Italica) BISALLYL ETHER TETRABROMOBISPHEN Order 720 sks (40,706 lbs) (E R Brussel) Felixstows, 5/5.

BURNT POWDERED Umber Order 800 bgs (39,683 fbs) (Stuttgart Express) Rotterdam, 4/29. Smith Chemical 800 bgs (39,683 lbs) (Stuttgart E BURNT UMBER Order 800 bgs (39,683 lbs) (Stuttgart Express) Rotterdamn, 4/29. n-BUTYL ISOCYANATE Janel Intl Forwarders 32 dms

(24,603 lbs) (Stuttgart Express) Rotterdam, 4/29.
BUTYL METHACRYLATE Surface Air Intl 1 tnk (39,418 lbs) (ER Brussel) Fellxstowe, 5/5.

CALCIUM CHLORIDE 2 HYDRATE Order 16 dms (1,882 lbs) (TFL Franklin) Bremerhaven, 5/5. CAPA 210 POLYCAPROLACTONE Interox America 78 dms (37,831 lbs) (E R Brussei) Felixstows, 5/5. CAROB POWDER, TOASTED TIC Gums 880 bgs (44,778 lbs) (italica Valencia, 5/6.

CASEIN Adamba Imports Intl 800 bgs (88,184 lbs) (Kaz-Imlerz Pulaski) Bremerhaven, 5/5. CATALYST BILICONAS Dow Coming 27 pls (1,301 lbs (Riverdale) La Guaira 4/20. CAUSTIC POTASH SOLUTION OIL 1 bks (1,296,000 lbs (Jo Lind) Grangemouth; 5/4: CERAMIC COLORS PULVERIZED Deguess 15 mlx (1,082 lbs) (ER Brussel) Bremen, 5/5.
CERES RED ANILINE DYES Mobsy Chemical 39 dms (2,068 lbs) (Atlantic Service) Rotterdam, 4/29. CHALK POWDER HW St John 730 bgs (77,161 lbs) (E R

Brussel) Felixatowa, 5/6 CHLORODIFLUOROMETHANE Order 1 con (35,582 lbs (Stuttgart Express) Greenock, 4/29. Kail Chemie 2 tnk (79,366 lbs) (Italica) Barcelona, 5/5. CINNAMIC ALDEHYDE Metro Oil & Chemical 39 dms (17,198 lbs) (E.R. Brussel) Rotterdam, 5/5. CINNAMON LEAF OIL Medellion Intl 5 dms (2,425 lbs0 (Hoegh Carrier) Colombo, 4/18.
CITRIC ACID ANHYDROUS Order 1,980 bgs (203,705

Ibe) (E.R. Brussel) Antwerp, 5/5. CITROPAL BASE Votainer Consolidation Service 4 dms (1,772 lbs) (E.R. Brussel) Breman, 5/5. CLOVE Oil John D Walsh 10 ctn (5,622 lbs) (Japan Am-

Order of Shipper 23 dma (12,088 lba) (Japan Ambrose) Polarome Mig 5 dms (2,679 lbs) (Japan Ambrose)

COAL TAR DYES Bas! Inmont 44 bxs (36,668 lkbs) (Jadran Express) Genoa, 4/126.
COAL TAR DYES FAST SCARLET Ampack 20 dms (3,986 lbs) (Hosph Carrier) Bombay, 4/18.
COALTAR DYES TURQUOISE BLUE Jecass 80 dms

(9,738 lba) (Hoegh Carrier) Bombay, 4/18.
COALTAR & DYE MALONONITRILE Lonza 12 dms (5,952 lbs) (Stuttgart Express) Bremerhaven, 4/29, COALTAR NAVILENE BLUE DYE Alba Fwdg 25 dms (6,7656 lbs) (Hoegh Carrier) Bornbay, 4/18.
COCONUT OIL Order of Shipper 4 bks (4,538,000 lbs) (Exporter) Cebu, 5/4.

2 bks (1.713,600 lbs) (Exporter) Davso, 5/4. COLOR FORMER Mitsul 10 dms (2,161 lbs) (Japan Am brosa) Tokyo, 5/4. CREAM OF TARTAR POWDER Terteric Chemicals 440 CRUDE PALM OIL NON HAZARDOUS Welch Holme & Clark 1 tnk (44,092 lbs) (Kazimlerz Pulaski) Rotter-

CYANURIO CHLORIDE Lonza 640 dms (80,142 lbs) (Stuttgart Express) Bremerhaven, 4/29.

CYCLOHEXYLAMINE Order 1 trik (39,727 lbs) (Kazimlera Pulaski) Rotterdam, 5/5. DEXTROSE MONOHYDRATE STANDARD Roquette

1,680 bgs (169,543 lbs) (Jadran Express) Genoa, o-DIANISIDINE DIHYDROCHLORIDE Dunlap Alpera Mott 260 dma (42,928 lba) ?????? DIZAZINE ORANGE Order 10 dms (1,213 lbs) (Dart At lantica) Felixatowe, 5/8. DICHLORODIFLUOROMETHANE Kell Chamle 1 tol

(41,687 lbs) (Italics) Barcelons, 5/5. Order 1 con (36, 111 lbs) (Stuttgart Express) Greenock DIETHÝLAMINOBENZALDEHYDE Order 78 dms (19.63) ibs0 (Atlantic Service) Rotterdam, 4/29.

DIMETHOATE TECHNICAL Order 115 dms (42,340 lbs (Sea Land Leader) Algedras, 5/8.
DIMETHYL BENZYL CARBINYL BUTYRAT Order 6 dms (2,112 lbs) (Japan Ambrose) Kobe, 5/4. DIOCTYLTINNOXIDE Thorson Chemical 80 dms (19,224 ibs) (E R Brussel) Antwerp, 5/5.

letic Ind 40 dms (21,184 lbs) (E.R. Brussel) Antwerp. ISODIUM-5-INOSINATE & GUASNYLATE AJI NOMOTO 1200 ctn (2,646 lbs) (Japan Ambrose DYE INTERMEDIATES John F Kilroy 75 dms (36,045 fos (Dart Atlantica) Le Havre 5/6.

DIPHENYLMETHAN44DIISOCYANATE IMC Royal Ath-

(82,646 lbs) (TFL Franklin) Bremarhaven, 5/5. ETHYLENE GLYCOL DIACETATE BP Chamical American 40 dms (22,046 lbs) (E R Brussal) Felixstowe, 5/5. ETHYLENETHIOUREA OIL Kallen Ind 40 bgs (2,240 lbs) E R Brussel) Bremen, 6/5.

EPSOM SALTS Potesh Import & Chemical 800 pgs

FATTY ACID Henkel 1 con (43.431 lbs) (E R Brugsel) Rotterdam, 5/5. Henkel 1 tnk (43,122 lbs) (E.R. Brussel) Bremen, 5/5. FATTY ALCOHOL Ameto Agency 620 bgs (26,482 lbs) (Bakkaloss) Rotterdam, 5/5.

Henkel 152 dma (34,013 lbs) (Kazimlerz Pulaski) Rotter LUOROBENZENE Order 25 dms (12,235 lbs) (TFL Franklin) Bremerhaven, 5/6. FORMALDEHYDE RESIN Donex 36 pt (48,255 lbs) (Sea Land LEader) Algechas, 5/8. GELATIN, TECH 350 Olympic Adhesive 680 bgs (38,728

lbs) (Japan Ambross, Kobs, 5/4. GELATIN Blue Anchor 54 dms (12,932 lbs) (kazimlerz Pulaski) Rotterdam, 5/5. Trans World Shog 639 bgs (35,924 lbs) (Act 5) Sydney,

GINSENG Achema 100 bgs (11,354 lbs) (Hoegh Carrier) GLUE Anker Labelars 9 dma (1,493 lbs) (Sluttgart Ex press) Rotterdam, 4/29 GRAPHITE PRODUCTS & ACCESSORIES Nippon Car-

bon 68 crt (227,131 lbs) (Japan Ambrose) Tokyo, GUM DAMAR BATU S Winterbourne 198 bgs (32,339 lbs) (Japan Ambrosa) Tokyo, 5/4. GUM KARAYA Colony Imports & Exports 200 bgs (36,067

ibs) (Hoegh Carrier) Bombay, 4/18. Tic Gums 117 bgs (22,441 lbs) (Hoegh Carrier) Bombay, GUM FIOSIN WW Grade Order 840 bgs (48,297 lbs) (TFI Franklin) Rotterdam, 8/8. HO HELIUM REFRIGERATED LIQUID Order 1 tnk (37,853 Ba0 (Stuttgart Express) Greenock, 4/29. HD OCENOL Henkel 152 dms (62,999 lbs) (Stuttgart ex-

ARDENER FOR ARTIFICIAL RESIN Ciba Gelgy 74 pkg (35.058 lbs) (Atlantic Service) Le Havre, 4/29 HEXYLENE GLYCOL BP OII 2 tnk (93,740 lbs) (ER Brussell Felixatowe, 5/5. HEPTANOIC ACID Order 1 bks (2,320,405 lbs) Jo Lind Grangemouth, 5/4,

EPTILIC ALDEHYDE OENANTHOL MURSIER Onyx Group 1 tnk (32,761 lbs) (Sea Land Leader) Alge-HYDROXY ETHYL METHACRYLATE BP Chem Ameri

cas 40 dma (16,695 lbs) (ER Brussel, Fallxstows HYDROXYMETHYLTRIAZAINDOLIZINE Order 10 dms (1.168 lbs) (TFL Franklin) Bremerhaven, 5/5. ICHTHAMMOL USP XXX Panalpina 25 dms (12,125 lbs) (TFL Franklin) Bremehavan, 5/5. INCOLUBLE SULPHUR Order 55 bgs (3,089 lbs) (Japan

Rotterdam, 4/29.

INDIAN GUM ÓLIBANÚM LD Maharal 20 cs (2,469 lbs) (Sea Land Adventur) Algeoiras, 4/30. ISOBUTYRIC ACID Order 78 dms (36,111 lbs) (TFL Franklin) Rotterdam, 5/8. ISOPHYTOL Order 1 tnk (35,769 lbs) (Atlantic Serv

TACONIC ACID Order 720 bgs (40,479 lbs) (ER Brussel JAPAN WAX, GENUINE Order 75 ctn (8,598 lbs) (Japan Ambrose) Kobe, 6/4. KOLA NUTS, DRY D Steengrafe 667 bgs (89,654 lbs) (Agborville) Abidjan, 4/22. KURMURA Deep Foods 201 bgs (4,431 lbs) (Hoegh Car-

rier) Bombay, 4/18.

LAMINATES PHENOLIC MELAMINE Oliner Fibre 14 pit
(28,605 lbs) (Hosgh Cerrier) Bombay, 4/18.

LIME O'L Order 10 drins (4,381 lbs) (Tana) Abdjan, 4/24.

LINALOL SYNTHETIC Order 79 drins (83,614 lbs) (Atlantic Service) Le Havre, 4/29.

LINALYL ACETATE Order 79 dms (33,614 lbs) (Atlantic Service) Le Havre, 4/29. LODUST BEAN GUM PL Thomas 220 bgs (11.204 ba) (Argoneul) Ganos, 5/5. LONA FAST TUHQUOISEBLUE RBL Delei 60 dms (1,204

(Dart Atlantica) Felixatows, 5/6. MARINE LIPID CONCENTRATE Altransport 5 pkg (2,293 lbs) (Dart Atlantica) Bremerhaven, 5/6.

MENTA PULEGI Harbarium 32 bgs (1,792 lbs) (Jadran Express) Rijeka, 4/16. MICRONIZED BURNT UMBER Order 2,400 bgs (119,049

fbs) (Stuttgart Express) Rollerdam, 4/29. MOLYBDATE ORANGE Harold Pepper 400 pkg (20,834 lbs) (Japan Ambrose) Tokyo, 5/4.

MOROCCAN CORIANDER SEEDS Order 360 bgs (39,683 lbs) (Argonaut) Casablenca, 5/5.

NAFTOCIT ZMBT Watt Terminal Warehouse 600 box (26,852 lbs) (Kazimierz Pulaski) Bremerbayen, 6/6 NIACINAMIDE Lonza 300 dms (36,045 lbs) (Stut6tgart Express) Bremerhaven, 4/29.

NN-DIMETHYLANILINE Order 90 dms (43,165 lbs) (EF Brussel) Antwerp, 5/5. IUTMEG OIL Fritzsche Dodge & Oicott 24 dms (9,954 lbs) (Hoegh Carrier) Padang, 4/18.
OLEORESIN BLACK PEPPER Order 21 dms (3,089 lbs) (Hoegh Carrier) Cochin, 4/18.

DLEORESIN CELERY Order 11 dms (4,870 lbs) (Hoeph Carriar OCochin, 4/18. LIVE OIL Berlo Imports 19,741 cs (449,904 lbs) (Jadran Express) Leghom, 4/16. Joseph Rutigliano 900 dms (41,667 lbs) (Italica) Napies

. Della Cella 72 dms (34,762 lbs) (Italica) Cadiz, 6/6. Rienzi & Son 1,410 crt (52,910 lbs) (Italica) Naples, 5/6. Schroeder Frader 100 dms (48,281 lbs) (Italica) Nacios,

Triunfo import & Export Food 100 crt (3,858 lbs) (A lantic Service) Rotterdam, 4/29. Gina Imports 1,000 cs (36,817 lbs) (Sea Land Adventure) Alasciras, 4/30. OLIVE OIL, EXTRA VIRGIN Fara San Martino 1,025 cm

(48,100 lbs) (Italics) Naples, 5/5. ORTHO NITRO CHLOROBENZOL Leschado 1 trik (41,579 lbs) (Allantic Service) Bremerhaven, 4/29.

OXYTETRACYCLINE HYDROCHLORIDE Boehringer in

gainalm 40 dms (4,762 lbs) (Jadrasn Express) Ri-'ALM KERNEL OIL Order of Shipper 2 bks (2,235,870 ibs) (Exporter) Past Gudang, 5/4. PARAFFIN WAX Dura Commodities 720 bgs (40,673 lbs) (Dart Atlantica) Felixstowe, 5/6.

PARAFORMALDEHYDE TR America Chemicals 18 pit (41,032 lbs) (Sea Land Adventur) Algectres, 4/30. 180 PEARL BONE GLUE Olympic Adhabive 346 bgs (38,903 lbs) (Japan Ambrose) Kobe, 5/4, PEARL BONE GLUE, CHINESE Olympia Adhesive 346 (38,903 lbs) (Japan Ambrose) Kobe, (PENICILLIN FC Gerlach 1,277 ctn (67,426 lbe) (Stuttgart express) Greenock, 4/29.

PHENOL METHANE MCI 4 dms (1.940 lbs) (Dark At lantica) Felixatowe, 5/6 HENOXY ACETIC ACID Bristol Myers 880 bgs (61,023 ibs) (Kazimierz Pulaski) Rotteram, 5/5. PHENYL ACID Unimodal 80 kgs (9,348 lbs) (Dart Amtentica) Felixatowa, 5/6.

PHORWITE REU UNCUT ANILINE DYES Mobay Chemical 30 dms (3,591 lbs) (Atlantic Service) Rotterdam PIOLOFORM BL 18 Wacker Chamicals 275 bgs (12,42) ibs) (TFL Franklin) Bromerhaven, 5/5 POLYCYCLOPENTADIENE RESIN UCC Products 24 br (11,005 lbs) (Dart Atlantics) Fefixatowe, 5/6. POLYETHYLENÉ GLYCOL Order 500 bgs (23,302 (be) (TFL Franklin) Bremerhaven, 8/6

POLYTETRAFLUOROETHYLENE SYNTH RE Monte dison 200 dms (11,684 lbs) (Jadran Express) Genog. POLYVINYL ALCOHOL Marubeni America 80 pkg (85,010 lbs) (Japan Ambrose) Kobe, 5/4. POTASSIUM CYANIDE GRAN SOLID Degusse 1,440

dma (158,290 lbs) (Stultgarl Express) Bremar-POTASSIUM NITRATE ICC Ind 360 bgs (40,318 lbs) (Kaz imlerrz Pulaskii Bremerhaven, 5/ PROPYLENEDICHLORIDE DICHLOROPROP Leschaco i trik (44,974 ibs) (Kazimlerz Pulaski) Rotterdam

PROTEIN CONCENTRATE Trugman Nash 2,264 bgs (126,888 lbs) (Act 6) Melbourne, 4/15. PSYLLIUM SEED HUSKS Order 475 bgs (43,982 lbs (Hoegh Carrier) Borribay, 4/18. PYRIDOXINE HYDROCLORIDE Order 20 dms (1,301 lbs) (Jedran Express) Rijeka, 4/16.

REFRIGERANT GAS Order 2 con (70,680 lbs) (Stuttgs Express) Greenock, 4/29. REGROUND PTFE POWDER Mitaul 110 dans (25,705 lbs) (Japan Ambrose) Tokyo, 6/4. ROCHE NIACIN USP FCCM Transcontainer Transports

900 dms (109,128 lbs) (Stuttgart Express) Bremer-ROOF CEMENT Benson Hanson Mig 2,025 pls (98,050 ibs) (Riverdala) La Guaira, 4/20. ROSA CHLORIDE Order 30 dms (6,071 lbs) (Atlantic Ser vice) Rotterdam, 4/29, ROSEMARY K I Litater 19 bgs (2,388 fbs) (See Lan

SABUDANA India Bazaar 10 bgs (1,014 lbs) (Hoegh Car-SACCHARIN SODIUM Sivey Shpg 320 pkg (37,919 fbs) (Japan Ambrose) Kobe, 5/4. SALT Richter Brothers 898 pcs (40,172 lbs) (ER Brussel Le Havre, 5/5. SELENIUM DIOXIDE Alloychem 28 dms (2,405 lbs) (8(u)

gart Express) Bremerhaven, 4/29. BELENIUM PELLETS W POLYETHYLENE Alloychem pit (2,399 lbs) (Japan Ambrose) Tokyo, 6/4. SIPERNAT DIONY Nortrh American Silica 600 bgs (20,503 lbs) (Stuttgart Expres) Bremerhaven, 4/29, SODIUM ALGINATE Kelco 800 sks (42,000 lbs) (Dart Atlantica) Felixatowa, 5/6.
SODIUM BENZOATE POWDER & FLAKE JM Rodgers
880 bgs (44,775 lbs) (ER Brussel) Rotterdam, 5/5.

800kim BROMATE Ameribrom 564 dms (118;122 lbs)
(Argonaut) HAlis, 5/5.
800jum CYANIDE GRAN SOLID Deguses 200 dms
(87,055 lbs) (Stuttgert Express) Bremerhaven, 4/29.
800jum FORMATE Kingsley & Kejth 20 plt (45,592 lbs)
(88s Land Adventur) Algebras, 4/30.
800jum GLUCONATE Atlantic Air Express 800 bgs

(206,836 lbs) (Kazimierz Puleski) Rotterdem, 5/5.

80DIUM METABISULPHITE Browning Chemical 350 bgs
(39,352 lbs) (Kazimierz Pulaski) Bromerhaven, 5/5.

80DIUM METABILICATE Browning Chemical 400 bgs

(44,775 lbs) (Argonaut) Naples, 5/5.

SODIUM PERSUL PHATE K&M Guatom Brokers 720 bgs (39,842 lbs) (Stuttgert Express) Bhomertiaven, 4/28, 8000UM PRODUKTS OXIDIZING MATL Nachem 20 pkg (2,357 kbs) (Dari Atentica) Bram; arhayan, 5/6.

SODIUM SILICATE S&R Distr. 16 ph (38,942 lbs) (Ply

SORBITOL EM Ind 9 bxs (43.475 lbs) (TFL Franklin) Bre merhaven, 5/5. STABIL HAROCHEM PDPE LEADPHTHALA American KK Chemical 1200 bgs (46,738 lbs) (ER Brussel)

SULFAMETHAZINE AJ Murray 180 dms (22,024 lbs) (Jadran Express) Rijska, 4/18 SULFAMETHAZINE Universal Transcontinental 320 dms (39,154 lbs) Jadran Express) Rijeka, 4/18. SULFISOXAZOLE Gyma Laboratories 100 dms (12,236 lbs) (Jadren Express) Rijeks, 4/16. SULPHUR HEXAFLUORIDE Montedison 165 cyl (39,032

Ds) (Jadran Express) Leghorn, 4/18. SYNTHETIC COAL TAR DYES Jecase 70 dms (13,102 abs) (Hoeph Carrier) Bombay, 4/18. SYNTHETIC RESIN Arlington Warehouse 42 pt (42,048 lbs) (Kazimierz Pulaski) Bromerhaven, 5/5.

Mobay Chemical 936 bgs (44,932 lbs) (TFL Franklin Rotterdam, 5/5. Montedison 400 dms (28,860 lbs) (Argonaut) Genos, Woodstock Wirs Works 1 plt (1,168 lbs) (Dart Allantical

Felixatowe, 5/8. SYNTHETIC RUBBER Enichem 32 pkg (89,177 lbs) (Sea Land Adventur) Algectras, 4/30.

Montedison 140 pkg (245, 198 bs) (Sea Land Adventur) Order 32 bxs (79,145 lbs) (ER Brussel) Antwerp, 6/5. SYNTHETIC RUBBER DUTRAL TER 03B Montedison 22

bxa (45,287 lbs) (Argonaut) Leghorn, 5/6. SYNTHETIC RUBBER JSR Mitsul 480 bgs (44,092 lbs) (See Lad Adventur) Algedras, 4/30.

TARTARIC ACID Joseph C Murray 432 bgs (44,603 lbs) (Arconaut) Barcelona 5/5. TETRAPOTASSIU PYROPHOSPHATE Saf Customs Broker 720 bgs (79,952 lbs) (Bakkoloss) Rotter-

TRASODIUM PYROPHOSPHATE Sal Customs Broker 800 bgs (44,797 lbs) (Bakkafoss) Rotterdam,

THIOGLYCOLIC ACID Flons Pearl 78 dms (44,785 lbs) (Kazimierz Pulaski) Bremarhaven, 5/5. THIOUREA DIOXIDE Degusse 120 dms (27,604 lbs) (Stuttgart Express, Bremerhaven, 4/29. TITANIUM DIOXIDE Durr Marketing 1,600 bgs (80,248 lbs) (Sea L?and Adventur) Algedras, 4/30. TITANIUM DIOXIDE Leschaco 5,320 bgs (278,287 lbs) (Stuttgart Express) Hotterdam, 4/29.

NL Ind 6,400 bgs (331,575 bs) (TFL Frenklin) Rotter-Superior Materials 800 bgs (40,124 lbs) (Sea Land Ad-Tioxide 720 bgs (41,072 lbs) (Sea Land Adventuri Alge-

Finniltan 720 bgs (39,381 lbs) (Kazimierz Pulaski) Bre-ANIUM DIXOIDE TITANOX NL Ind 3,500 bgs (181,328 Iba) (Atlantic Service) Rotterdam, 4/29. 900 bgs (199,882 lbs) (Kazimierz Pulaski) Rotterdam

WTC Air Freight 6,300 bgs (325,002 lbs) (Stuttgart Express) Bremerhaven, 4/29. MA FC Garlach 35 kgs (2,515 lbs) (Stuttgart Express)

RICHLOROTRIFLUOROMETHANE FORANE Order trik (39,683 lbs) (TFL Franklin) Rotterdam, 5/5. TUNG OIL Amber 1 bks (330,890 lbs) (Jo Lind) Grange-TURPENTINE Winsor & Newton 73 ctn (3,723 ibs) (Dart

Atlantica) Falixstows, 5/8. ULTRAMARINE BLUE Hilton Davis Chemical 800 bds (45.194 lbs) (TFL Franklin) Rotterdam, 5/5. VEGETABLE CARBON, ACTIVATED American Nosit 20 plt (40,697 lbs) (Stuttgart Express) Greenock, 4/29.

VINEGAR Barlo Imports 420 cs (10,362 lbs) (Jadran Ex-Pairick Powers 980 pkg (10,467 lbs) (Jadren Exprerse)

6 plt (17,199 lbs) (Jadran Express) Genoa, 4/16. WAX Henkel 800 bgs (40,917 lbs) (TFL Franklin) Bremer-WAXY CATIONIC STARCH National & Chemical 702 pkg (39,465 lbs) (Stuttgart Express) Greenock, 4/29. XYLENE Royal Athletic Ind 20 dms (10,582 lbs) (ER Brus-

sei) Antwerp, 5/5. XYLENOL Rherus Transport Intl 152 data (74,727 lba) (Bakkafoss) Rotterdam, 5/5. 4-XYLINDINE Leschago 1 tak (38,272 lbs) (ER Brussel) Antwerp, 5/5.

Grace to Open Lab

W. R. Grace & Co. last week opened a new 70,000-square-foot laboratory at its Washington Research Center headquartered in Columbia, Md. Construction of the two-story

laboratory began in late 1984. The new facility is part of an \$8.5 million, 90,000-square-foot laboratory expansion, which includes a ceramics applications laboratory, new pilot and laboratory space for process development, and new homes for research efforts in biotechnology, catalysis and electrochemistry.

According to Dr. F. Peter Boer, president of Grace's Research Division, "This expanaion reflects Grace's long-term commitment to expand its research efforts with the objective of both developing new product lines in high technology businesses and generating new products for Grace's existing specialty chemical operations.

The new facility will satisfy the Washington Research Center's R&D space requirements until the 1990's. Research at the center is primarily conducted for Grace's specialty

Their primary mission is to develop new business and investment options for Grace aswell as to create new products that are com-

Far West, Scotch \$14.50-\$15.25 \$15 Telex:642-863 (be) (Hosen Carriero Bombay, 4/18. Midwest, Bootch..... \$14.50-\$15.25 : \$15 June 9, 1986

WEEK ENDING JUNE 6, 1986

This chemical prices section contains spot quotations and/or list prices of suppliers of chemicals and related materials on a New York or other indicated basis. The listings are based on price information obtained from suppliers. Note that posted prices do not necessarily represent levels at which transactions actually may have occurred. They do not represent bld and asked prices, nor a range of prices over the week. Price ranges may represent quotations of different suppliers as well as differences in quantity, quality and location. All matters under this heading are fully covered by copyright.

An index of weekly chemical market reports is on the back cover.

			the state of the base	
			Alumine, activated, gran., 100-lb. bgs., 40,000-lb. min. o.L., works. ton 821.00	-
- A			calcined, bulk, same basis ton 354.00	_
			hydrated, white, bulk, same ba-	
			' staton 190,00	_
			100-lb. bgs., same basis ton 224.00 Atuminum acetate, basic, dms., l.c.l.,	-
MALE OF THE PARTY	5.00	-	works	-
cetaldehyde, 99%, tanka, frt. alid. Ib. Prices 1c. higher in West.	.37	-	Atumbum chloride, anhyd., agin., 500- 600 ib. dma., c.i., t.i., works,	
cataminophen (see N-Acetyl-p-aminopher	101)		frt. equeld	.55
cetenlice, tech, flaked, bgs, t.L, f.o.b. worksb.	1.29		bulk, same basis	491 .53
cetic ecid, tech., tanks, divd. E	.25	- (Aluminum chloride, comi., acin., 32°	
cetic anhydride, tanks, divd. E ib. Acetic anhydride prices 1 o. higher in Wes	.431/2	-	tanks, works 100 fbs. 15.00 ret. dms., c.l., works 100 fbs. 12.00	
ratoacataniide, dma., t.l., divd ib.	1.29	_	non-ret, dms., same basis . 100 lbs. 20.00	-
cetogcet-o-galaidide, dms., t.i.,	2.70		Aluminum formate, dibasio, ikq. 8% Al ₂ O ₂ t.J., works ib	_
cetoacet-o-chioroaniide, dms., t.l.,	2.10	_	Aluminum hydrate (see Alumine, hydrated)	
dvdb.	2.85	-	Aluminum hydroxide, dried, gel, NF,	3.50
cetoacet-o-toluidide, dms., t.l.,	1.58	_	76-lb, dms., c.l., t.l., works. lb. 2.75 Atuminum metal, 994% or more, 50-lb.	0,00
celoacet-m-xylidide, dms., t.l.,	0.10		pigs., 30,000-ib. jots, frt.	
divd	3.33 .25	_	ald	(30).
divd. Zone 2 (Calif.)	.27	-	Aluminum paste, lealing grade,	
divd. Zone 3 (W. of Rockies exclud- log Calif.)	.27	_	std.,lining, 2,400 lb. lots, dvdb. 1.40	_
cetonitrile, tanks, frt. alkt b.	.53	.5412	lining, extra-fine, same basis lb. 1.99	2.14
cetophenetklin (see Phenacetin). cotophenone, tech., tanka, 1.o.b.			Aluminum phanoisulfonate, purif., 100- kilo dms., t.Lkilo 6.48	_
workslb.	.78	.85	Aluminum powder, leafing grade, std.	
perfume grade, extra, ons lb. I-Acetyl-p-aminophanol, c.l., t.l.	2.15	-	Ening, 2,400 fb. lots, dvd lb. 3.17 extra fine, lining, same basis lb. 4.04	_
workskilo	5.95	6.64	Akıminum stearate, bga., c.l lb. 1.25	
cetylene black, imp., 60% com- pressed, 12%-lb, bgs. c.i., t.i.			Aluminum sulfate, comi., grd., 100 lb. bgs., c.i., works, int. equald.,	
frt.extra	.98	•	basis 17% Al ₂ O ₃ East and Guif	
100%, 25-lb. bgs., same ba- sisb.	.95%	_	Coastston 185.00 West Cosstton 217.80	
Acetylene tetrabromide, tanks, f.o.b.		_	liq., tanka, N.E. same basis ton 145.00	
works	.97	-	tron-fres, dry, bgs., c.l. same	_
kcetylinbutyl citrats, bulk, l.o.b.			basis	265.0
workslb.	1.28		Aluminum suifate, USP, gran., dms. lb	.337
kcetyltriethyl citrate, bulk, 1.o.b. works	2.08	_	Aminoacetic acid, USP, drns., 20,000 lbs., f.o.b. workslb. 2,12	2 -
Acrolein, tech., tanks, works	.62	-	tech., t.l., same basis ib. 1.88	
korylamide, solid, 1 l. works lb. soln., 100% basis tanks, works lb.	1.00 .74	. . 77	p-Aminobenzok scid, 1,000 kilos or more, dms., f.o.b. works . kilo 9.60	0 10.1
Acrylic ecid. glacial, reg., tanks.			2-Amino-4-chlorophenol dry and grd.,	
divd	.67 .60	-	14,000 his. or more, irt. alid. ib. 5.79 Aminoethyl ethanolamine, tanks, frt.	9 -
Acrylonithie, tanks, works ib.	.3912	.461/2	collect	31/2: -
Acrylonitrile-butschene-styrene resin, high-impact, nat., t.l., dms.,			N-Aminoethyl piperazine, tanks, f.o.b., frt. collect	5 -
dívób.	1.05	1.09	2-Amino-2-ethyl-1,3-propsnedlol	
medium-impact, nat., same basis lb. low-impact, nat., same basis lb.	.94 .75	.9B -	dms., t.l. f.o.b. workslb. 1.8	2 -
Actipic acid, resin grade, bulk, hopper	.57			F 14 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
cars, frt. equald	.59	-		
Ager USP, powd., 60 to 100 mesh.,	9.50			
Alcohol, syn. C-8 to C-10, tanks, f.o.b.	9.00	_	ARRE	. W
Works	.38 .57	- .59	ABBRE	- 1
C-14 to C-15, tanke, divd lb.	.57	- -		
C-16 to C-18, lanks, divd , ib.	.80	_ 6 70		
Aldehyde, C-6, dms	4.10 1.95	5.70 -	THE TERMINOLOGY OF T	HE CH
C-8, dms	4.30	6.30	s/siphs C./Centric	
C-10 dms	4.30	5.35	alid /allowed chus /cerf	igas Ters
Alkeli blue, dry, flushed, 110-lb, dms,	9 70	2.00	amorphiamorphous c.c./ouble	centimet
divdib. Aikali blue prices 1c. higher W. of	3.72	3.83	point	etely den
Rockies.			annyd./annydrous c.kf./cost	Insurance
Aliapico Guatemaian / Honduran,	1.00	_	AOAC/Association of freight Official Agricultural c.l./carlos	, et
bgslb. Jamaican bgslb.	1.05	-	Chemists cos /cons	
Aliyi alcohol, fanks, f.o.b., Bayport, Texb.		_	phoricacid comi./com	
Allyl bromide, 500-kllo drns, 2,000 lbs.			approx./approximately en/ehomic	
or more, workslb. Allyl caproste, 25-lb. cnslb.	5.50 3.90	4.50	artiformodes Cost. cps./cent	ipolaea
Afylichlonde, tunks, f.o.b. works Ib.	65	-	ety for Testing & ce /cease	
Alfricathiceyanate, bots	. 5.40 lyde.)	6.90	materials cins./car	tons
Almond oil, nat. bitter, NF (.f.p.a.			cyla./cylle	unal s
bolab		3.60 1.60	b/beta Be/Baume d-/dextro	,
, Aloo, Cape, est	2.00	_	bble./barrels dbl./dout	ple
powd .cslb Curacso, kgs	2.25	2.75	b.g./beta-gamma denat./de	
, jxywd kgs jb	3.00	-	bis-/bales tively (fistilled.
Alon, NF, oms Ib Alon, amnordum, tech gran, bgs.	860			-laevo
CANADA CHARLES MAILLE WILL BE BEAT ON THE	35.00	_		tributor
· • • • • • • • • • • • • • • • • • • •	ւ մեւսև			Asses
FCC powel, liber days, works 100 kb	£ 55.00		of lims divd./del	
· • • • • • • • • • • • • • • • • • • •	k 55.00 35.00			ime ;

PNIV	E	3	dma., t.l. kllo Ammonia, anhyd., fertilizer, wholesale,	18.50	- 1	Antimony Ruoborato, liq conc., 175-lb	1.70	-
			tanks, divd. Midwest termi-	165.00	170.00	dms., t l., works	3 02 1 29	1.35
			tankcars, f.o.b. Gull Coast ton aqueous, 29.4% NH ₃ , arhyd. basis.	90.00	95.00	Antimony oxide, high-hint, bgs . c l , frt alid. E. of Aockies lb		1.50
			tanks frt. equald, E. of Rock-	260.00	315.00	Antimony trichloride, nihyd , solid, dmg , t i works . Ib	3.60	_
ot quotations and/or ils	t prices	of	Ammoniacai liquor (see Ammonia, aqueos	us).		Aportorphine hydrochloride, NF, Udis.,	15 00	_
on a New York or othe	r indica	ted	Ammoniac sai, galvanizing grade, bgs., c.i., f.o.b. works 100ibs	28.60		Apricol karnel oil, dms ib	2.05	-
tion obtained from supp	oliers. N	ote	Ammoniac sal. white (see Ammonium chk Arranonium biborate, gran., dms., c.i.	onde com	H.).	Arabic gum, powd , bbis lb spray dried	1.85 2.60	2.15 2.50
sent levels at which tre	ansaction	ons	works	.90 . higher.	-	USP grade	6.75 Solvent. n	9.25 aphtha
resent bid and asked pr	rices, no	ora	Ammonium bicarbonate, 300-15. lib.	26.00	_	potroloum, aromatic) Arsenic, crudo (seo Arsenious trioxido).		
es may represent quo	otations	OT	dms., c.l., works 100 lbs. bgs., c.l 100 lbs.	25.00	-	Arviki, red (see Napihol, aryiki red).		
quantity, quality and lo	cation.	All	Ammonium bichromate, photo-litho grade, gran. 100-lb. dms., l.t.t.		-		900.00	-
by copyright.			works	2.00	-	Asbestina (see Talc, fibrous). Ascorbic actd, USP, 100 kilos.		
eports is on the back c	OVEL		worksib.	.70	-	Ash, black (soe Barlum sulfide).	9.00	10.50
abouta is our the nack of	01011		Ammonium bromide, dom. NF, gran., dms., c.i., t.i., f.o.b. works . lb.	1.31	-	Asphalt gilsonite, (see Gilsonite). Asphalt petroleum cutback, tanks, E.		
			Animonium chłoride, white, tech., fine gran., bgs., c.i.,			Coast	.86	-
ne, activated, gran., 100-lb. bgs.,			works	18.00 .40	.53	emulsion, tanks, tankwagons, E. Coastgal	.68	•
40,000-lb.m/n.c.l., works.ton	821.00 354.00	-	Ammonium citrate, dibasio, 250-ib.	2.79	_		170 00	-
00-tb. bgs., same basis ton	360.00	-	dma. f.o.b. worksb. Ammonium dimolybdata, approx.			ateep roofing grade, bulk tankwag- onlon	175 00	-
	190.00	-	65%, 24,000 lbs. or more . fb. Ammonium fluoborate, tech., dms.,	5.48	-	Aspirin, USP, cryst., powd., 250- lb.dms., c.l., f.o.b lb.	1.95	_
00-tb. bgs., same basis ton rum acetate, basic, dims., i.c.i.,	224.00		c.l., t.l., works, irt. equald lb. Ammonium heptamolybdate, cryst.,	1.79	-	10% starch granulation, white, 250-	1.97	_
works. Ib. hum chloride, anhyd., soin., 500-	3.25	-	dms., 24,000 lbs. 1.o.b.	5.57	_	Ib. dm, c.l., f.o.b		
600 lb. dms., c.l., t.l., works,	.50	.55	works		00	basig	2.80 over stand	lard route
fri. equeld	.451/2	.49¥± .53	worksib. Ammonium lignin, sulfonate, bulk,	.29	.32	from N.Y., Phila., Midland, Mi	ch., Chicag	o and \$
ni-bulk bins, same basis fb. inum chioride, comi., soin., 32°	.48	.53	f.o.b. Hogulam, Ore ton Ammonium nitrate, dom., fertilizer	72.00	-	Atropine sulfate, USP, bots oz Avocado oli, dmsib.	10 00	11.00 4.50
tanks, works 100 lbs. . dms., c.l., works 100 lbs.	15.00 12.00	_	grade, 33.5% N, bulk, S.E.	160.00	155.00	Azelaic acid, tech., 50-lb. bgs., t.1, c.1,		_
n-ret, dms., same basis . 100 lbs.	20.00	-	Ammonium oxelate, tech., fine. gran.	100.00	100.00	Azo orange, bb/s., dlvdlb.	1 23 4 60	-
ilnum formete, dibasio, ilq. 8% Al ₂ O ₃ t.l., worksib.	. 55	-	300-ib. dms., t.l., f.o.b. works	1.42	1.68	Azo yellow, 10 G, bgs., dlvd. E of Rockies	4 40	_
inum hydrate (see Alumine, hydrate Inum hydroxide, dried, gel. NF,			Ammonium pentaborate gran. bgs., c.i., workslb.	.75	_	Azo G yellow pigment, bgs., same basis	2.45	
76-lb, dms., c.l., t.l., works. lb. hnum metal, 9944% or more, 50-lb.	2.76	3.50	Ammonium pentaborate powder 20c.			319	-	
pigs., 30,000-lb. lots, frt.	.76	_	per lb. higher. Ammonium persuitate, 225-lb. dms.					
nmulA ees) suorphous exide Alumin) .	24,000 lbs. or more, f.o.b. workslb.	.58				
ninum paste, leafing grade, std.,lining, 2,400 lb. lots,	4.0		55-lb. bgs., same basis lb. Ammonium phosphate (see Di- and r	66. Nasonom				
dvdb. ing, extra-fine, same basislb.	1,40 1,99	2.14	phates). Ammonium silicofluoride, dms. c.l., t.l.,					
ninum phanoisulfonate, purli., 100- kilo dms., t.Lkilo	6.48	_	workslb.	.30)34 -	Backracin, USP, non-sterile, one billion		a 00
ninum powder, leafing grade, std. lining, 2,400 fb. lots, divd lb.	3,17	_	Ammonium sulfate, ig. gran., bulk, c.i., workston	74.00	_	units or more milion units Barbiral, NF, 50-kilo dnis., cilvd kilo	6 30 22.50	6.60
tra fine, Ining, same basis Ib.	4.04	_ 1.37	etd., comi., bulk, f.o.b. works ton toch., bgs., c.i., t.i., works ton	73.00 108.00		Barbital-sodium, NF, 50-kilo dnis.		
ninum stearate, bgs., c.l lb. ninum sulfate, comi., grd., 100 lb.	1.25	1.07	Ammonium suifide, líq., 40-44% tanks, 100% basis, frt. equald ton.	0.00		Barda, dry-grd Southorn, off-color, coarso, bgs., c t., t.o b. maies Ri		.11
basis 17% Al ₂ O ₃ East and Gulf			Ammonium sulfocysnide, tech. (see Ar	nmonium		water-grd , white, bgs . c.i ,		-
Coastston	185.00 217.80	-	Ammonium thiocyanate, tech., cryst., bgs., c.l., works	. 1.02	2 -	t.o.b, works		-
a., tanka, N.E. same basis ton on-fres, dry, bgs., c.l. same	145.00	-	tech soln., 50%, tanks, fri.	9:	3 -	grade, c.l., f.b.tr works from Barium carbbriste, pricip, falk, c.f.,		_
basis ton 2., tanks, same basis ton	300.00	_ 265.00	Ammonium thiosulfate, photographic 60%, tanks, f.o.b. works ib	•	3 -	works, fit, equald th. figs , some bush th.	25	- -
minum suifate, USP, gran dms. lb.	-	.337	Ammonium zirconyl carbonate, suin.			ghoto grada, bgr. , sumo basis tem	510,00	-
inoacetic acid, USP, drns., 20,000 lbs., f.o.b. workslb.	2.12	_	Amyl acetate, primary mixed isomers	i, _		Badum chlorute, 100 Billians , 1-10 dm. lats, works	1.04	-
ech., t.l., same basis ib. Iminopenzoic scid, 1,000 kilos or	1.88	-	tanks, divd	},		British chloride, tests., cryst , byp., i. l., works ton	470.00	-
more, dms., f.o.b. works - kilo imino-4-chiorophenoi dry and grd.,	9.60	10.10	tanks, frt. alid lb. Amyl cinnanic aldehyde, dms lb	4	67≥ – 5 2.50	natiya druma a Lasana Perdu tan Barum ablorkla, pulli , ayıdı 400 de.	590.00	-
14,000 lbs. or more, irt. alid. lb.	. 5.79	-	p-ten-Amylphenol, bulk, worksft	Qc	1.03	તેલાકા, જાઈકેકા	3.70	-
incethyl ethanolamine, tanks, frt.	. 1.337	2 –	Amyris off, drns	o 10.2	20 –	Burkini monohydrata, 55 lb. երբ , « և, լե քուն, works 100 lbs	48,00	
Aminoethy) piperazine, tanks, f.o.b., frt. collect	1.05	_	USP, dms		4,00 -	exabbydrato, cryst., typ., subti fords . 100 fter	33.00	-
Amino-2-ethyl-1,3-propsnedlo dms., t.l. f.o.b. workslb		•-	Anise of, dms.	s4	SA. OI	Britan Akrato, 100 to. bgs. Cl. works		•
uma, um no.o. workaID	1.06	The state of the s	1 Supar Cit, Citia	U 11./		• TANKS CANTAL	. 175, 170	
				, m, ,				
	BE			11 6				
V C C C	JE	M	IATIAN					٠ * والم

2-Amino-2-methyl-1-propanol, 95%,

tanks, f.o.b. works......lb.

-Aminophenol, dms., I.o.b. Charlotte,

p-Aminophenol, t.i. dms., f.o.b.
Raisigh, N.C. kifo
p-Aminosalicylic acid, USP, 50-kilo

dms., c.l., t.l., t.o.b. works . lb.

Aniso sead, Egypt, type

Livib, emb, qini, onibisinA-c

p-Anisidino, imp., cast solid, dans.,

Anthranilo acid, putil., 99% nyn , dors ,

THE TERMINOLOGY OF THE CHEMICAL MARKETPLACE C./Centrigrade cbys./carboys alid./allowed amorph./amorphous AMP/American melting anhyd./anhydrous AOAC/Association of c.l.f./cost insurance chs./cans e.p.a./Evallable phos-phoric acid comi./commercial approx./approximately artit./artificial ASTM/American Soci-ety for Testing & Be/Baume bble./barrels

conc./concentrated cp/chemically pure cps./centipolaes ctns./cartons d-/dextro dbl./double denat./denatured dest-dist/destructively distilled deatho-laevo dist./distilled distr./distributor divd./delivered dms./drums

e.p./endpoint F./Fahrenhelt f.a.s./free alongside ferment/fermentation f.f.a./free fajty acid f.f.c./free from chlorine 1.1.p.s./free from prus-

sic sold fib./fiber f.o.b./free on board f.p./freezing point frt./freight g-/gamma gal./gallon g.p./general purpose gran./granulor grd./ground N/nitrogen n-/normal nat./natural neut./neutral NF/Netional Formulary Lb.p/Initial botting mp./Imported

o-/ortho ord./ordinary Incl./included industrial Oz./ounce kgs./kegs p-/para Pac./Pacific to./pound i.c.l../less carload m.a.p./mlxed aniline meg./microgram mira./manufacturers min./minkmum molt./molten m.p./melting point

tech./technical teri./tertiasy i.i./truckload pkgs./peckages
powd./powdered
precip./procipitated
pred./producer
pt./point
pulv./pulverized
pudf./purified on/refers to short ton TVA/temporary volun-USP/United Blates redist/redistilled rofy./refinery returnable \$D/specially denatured s.d./single distilled SE/Southeast

white./warehouse NOTE: A unit-ton is 1 percent of 2,000 pounds of the basic constituent or other standard of the material percentage figure of the basic constituent multiplied by the unit-ton price shown in Chambles Hall Reporter gives the price of 2,000 pounds of the material.

secs./seconds
sp.g./specific gravity
ship't/shipment
soin./solution

of 2,000 pounds

.w./tenkwagons

Pharmacopals

vis./viscosity VM&P/vamiah maken

& painters

Barlum oxide, grd., dms., c.l., Barium peroxide, 700-lb. dms., c.l., (.l. Barium stearale, bulk, t.l., f.o.b. Barlum sulfate, tech. (see Barlte and Blanc fixe). Barium sulfida (black ash), dms., c.l. works.....ton Baltery acid, t.l., f.o.b., works ton Bauxits, calcined, refractory grade, 874-88% Al₂O₃, Baltimore & 16.00 3.00 bricke, 100-lb. otne. lb. white, slabs, 100-lb. ctns. lb. yellow, bricks, 100-lb. ctns. ... lb. yellow, slaba, 100-fb. otna.....lb. Bentonite, dom., o.l. bags, f.o.b. Prices are 4c. per lb. higher West of the Rockles. Benzene, Indust. or nitration, barges, f.o.b. Jeaumont, Tex... Cattellsburg. Ky. Chicago district gal. Chocolate Bayou, Tex. . . . gal. Clairton, Pa. ga Corpus Christi, Tex..... Houston district, spot....ga/ Benzene hexachloride, 99% gamma isomer (see Lindane). Benzidina orange, powd., bgs.,dlvd.lb. ilq., containers, divd. lb. Benzidine yellow, AAA, bgs., divd. . ib. Benzolcacid, tech., bgs., c.l., t.l., f.o.b. works......b. USP cryst., dms., ton lote same ba-Benzophenone, N.F., 1,000 lbs. or N.F., 1,000 kilos or more, I.o.b. . . . kg. tech, 1,000 kilos or more, fob Benzotriazole, flake, dms., 1,000 lbs. or more, f.o.b. works lb. 6.10 powd., dms., 1,000 lbs. or more, photo-grade, dms., 1,000 lbs. or more, same besis. ib. Benzotrichtoride, refd., dms. t.l., frt. equald.....b. Benzoyi chioride dins., c i., works lb. .634z tanks, lrt. equald.......b. 74Vz .75 Benzoyi peroxide, regular gran., 10,000-lb, lots or more, bgs., works, irt. equald. ib. 2.35 6.98 paste, 50% and 55% formulations. dms., palls, frt. equald. ... lb. Benzyl alcohol, N.F. t.i. dms. frt. equald.....biaupe tanks, same basis photo grade, t.l., dms., same ba-tanks, same basis tach. grade, t.i., dms., same basisib. 2.25 Benzyl benzoate, dms. b. Benzyl chloride, tech., non-ret, dms., tanka, f.o.b. lb. Benzyl danamate, 25-lb. cns. lb. n-Benzyl-N,N-dimethylamine, t.l., dma., f.o.b. works lb. 2.30 6-tert-Butyl-m-cresol (see Mono-tert-butyl-m-cresol). Bergamot off, nat., Italian, f.o.b. . . klo 40.00 Betahydroxynephthoic acid (see b-Oxynaphthoic acid).
Blotin, cryst.,500 gms. or more...gm. 6.50 —
Biphenyi (see Diphenyi).
Bismuth nitrate, purif. cryst., 100fo.dms., frt. equald. lb. 10.00 Blamuth oxychlorids, 100-lb. dms., Blattuth subcarbonate, USP, medium powd., 225-b. drns., works, lb. 15.31 15.50 Blemuth aubgallate, punif., 100-lb. Blamuth subnitrate NF, powd., 200-fb. Blamuth subsalicylate, purif. powd., 50-100 lb. dms., works....lb. amuth trioxide, reagent, powd., 100-lb, dms., works. Bisphenol-A, epoxy grade, hopper cars, divd. polycarbonate grade, same basis lb. Bola de rose oll, Braz., dms. Pennian dans.....lb BON toner (red 48) dms., frt. alid. . ib. 7.25 (red 62) dms., same basis. . . . ib. 6.50 Bonemael, etsamed, dom., bgs., c.l., f.o.b. Midwest plants. . . ton 300.00 imp., same basis, f.o.b. Philadel-Bone phosphate, precip. (see Calcium phosphate tribasio). Borax, tech. anhyd. 98%, bgs., c.l.,

Borax, lech., gran., decahydrate, 991/16 bgs., c.i., works . . ton 237.00 tech., pentahydrate, gran. 991/1%, bgs., c.l., works. ton 220.00 Borax, NF (See Socium borate). bulk, c.l., works ton 569.00 Boron trichloride, CP, 1.800-lb. cyls., Boron trifluoride, 60-lb. cyls., t.l., f.o.b. Boron trifluoride, elherale, 500-lb. dms., tl., j.o.b., works....b. phenolate, 500-lb. dms., Ll., same bulk. 45,000-lb. min., works L Fromine divd., prices for dras, and bulk shipped W. of Rockie 1c.-per-lb. higher. Bulk t.t. prices 1c. to 21/2c.-per-1 higher for 30,000-lb. min. and 4c. to 51/2c.-per-1 higher for 15,000-lb, min. Bromochloromethane, dms., c.l., f.o.b. 1,4-Butanedioi, tanks, f.o.b., frt. lutena-1, tanks, f.o.b. works.. !b. n-Butyl acetate, syn., tanks, frt. alid. lb. n-Butyl acrylate, tanks, Irt. alld. E. . . lb. n-Butyl alcohol, syn., ferment, tanks, ec-Butyl alcohol, syn., tanks, divd. lb. ert-Butyl alcohol, syn., tanks, dlvd. Butyl aldehyde (see Butyraldehyde) Butyi benzyi phthalate, tanks, frt Butyl cyclohexyl phthalate, tanks, n-Butyl ether, dms., c.l., t.l., works. . lb. Butyl isodecyl phthalate, tanks, n-Butyl lactate, tanka, f.o.b. works . lb. n-Butyllithium, 15% soin., 1,000-ib. lots or more cyls., 100% basis, divd......ib. tanks, 3,000-ib. min., 100% basis, divd.....lb. Butyl methacrylate, tanks, frt. equald......lb. Butyl octyl phthalate, tanks, divd. Bulyl cleate, dist., dms., c.l. , lb. tanks.....to p-tert-Butylphanol, tanka works . . . lb. Butyl phthalsie (see Dibutyl phihalate). Bulyi stearale cosmetic, dma., 77 dms. or more.....lb. Butylamine (see Mono-, Di- and Tributylamine). tert-Butylamine, dms., o.l., t.l., f.o.b. tanks, same basis.....ib. Butylated hydroxyanisola, food grade, grades cl., tl., bgs., dlvd. lb. 1,3-Bulylene glycol, tanks, dlvd. . . . lb. Butyric acid, tanks, frt. alid. ib. Butyric ether (see Ethyl butyrate). Butyrolactons, tanks, I.o.b. plant... jb. n-Butyronkrile, dms., c.l., divd. lb. Cadmium chloride, purif. cryst., 100-ib. dms., t.l., works...... ib. 3.73 – Cadmium, CP, red, dark shade, bbls., 100-lb. lots, frt. ald., E. of medium-light chade, bbls., same ba-Cadmium, CP yellow, all ahadas, bbis., 100-lb. lots, frt. alld., E. of Cadmium fluoborate, liq. conc., dms., t.i.. works. frt. equald......ib. medium-light shade, bbls., same ba-8ls.....lb. Cadmium-mercury lithopone, margon shade, bbis., irt. ald. E. of Rockles.....lb. Cadmium metal legota or sticks, ton Cadmium nitrate, purif., flake 400-lb. dma., o.l., t.l., f.o.b. ship, pt.ib.
Cadmium-selenide-fithopone, orange, light shade, bbls., 400-lb. lots. frt. alid. E. of Rockles. . . . lb. Cadmium-selenide lithopone, red, derk shade, bhis., same besis. . lb. light shade, bhis., same besis. . . lb. medium light shade, bbls., same bamedium shade, bbis., same basis.ib. marcon shade, bbts., same basis, ib. Cadmium-selanide lithopone, yellow, ali shadea, bbis., same basis. . ib. Cadmium sulfate, 60-lb. dms., any Calcifarol, (see Ergocalciferol).
Calcifarol, (see Ergocalciferol).
Calcifarol, (see Ergocalciferol).
Calcifarol, (see Ergocalciferol).
Liu, works. high abrasion (HAF), high atructure, bulk of works

-					
•	Calcium carbide, aid., generator size, bulk, c.l., i.o.b., works, ton Calcium carbonate, pulvarized, 325-	402.00	-	AUFILIALI	
-	mesh, bgs., bulk, f.o.b. workston siuries, 54% solids, same	34.50	_	GHEMICAL	
	basis	167.00 98.00	<u>-</u> .		
	quickime, gran., ind., bulk, work- ston Calcium carbonate, coated, bge., c.L.	67.00	-	PRICES	
	workslb. Calcium carbonate, precip., bgs.,	.0742 970.00	.1350 430.00		
	Calcium carbonate precip. medium, bgs., c.l., works ton	95.00	140.00	WEEK ENDING JUNE 6, 1986	
l	precip. dense. bgs., c.i., surface treated, bgs., c.i., works ton ultrailne, USP, bgs.,	195.00	-	Carbon Black, low structure, bulk, c.l. works	
\$V2	c.l.,workston Calcium chloride, cons., reg. grade. 77- 80%, flake, bulk, c.l.,	160.00	170.00	Intermediate-super-abrasion (ISAF)b3460 - bgs., c.f. worksb3850 -	
188, - 10. 1-10-	workston		-	auper-abrasion (SAF), bulk, c.i., works	
	basis	196.00 217.00	-	bgs., c.l., works	
B1/2	80-lb. bgs., c.l., same basis ton brining grade, 80-lb. bags ton Calcium chloride, liq., 100 percent ba-		-	bgs., c.l., works)\/2
8	els, t.c., t.t., barge ton 45% same basis ton	99.76 118.00	-		172
	Calcium chloride, USP, gran., 225-lb. dms., t.l., frt. equald lb. Calcium citrate, purif., 200-lb. dms.,	.90	-	f.o.b. W. coast refinerles bbis, 14.50 - Carbon disulfide, t.c., f.o.b. works ton 420.00 - Carbon tetrachloride, CP, consumers,	
	10,000 lbs. or more, f.o.b. workslb. Calcium cyanamide, indust., anhyd.	3.62	-	dms., c.l., frt. alid 1b,	
	dms., works ton Calcium gluconate, USP powd. t.l lb.	300.00 1.80	-	tank transport (min. 4,000 gats.) frt. alidb24 ~ Carboxymethyl cellulose (see CMC).	
ю .	Calcium hydride, lump, dms., 25- 1,000-lb. lots. works lb. Calcium hypochlorite, 100-lb. dms.,	10.50	13.25	Cardamom olf, NF, bots	
	truckloads ship,t. E. of Rock- les 160 lbs. Calcium hypophosphije, dms., buk,	92.40	-	Camine, No. 40, NF, bulk, 100-lb. lots or more, divd	
	500 tdlos or more kilo Calcium lodate, FCC dms., f.o.b.	13.75	14.50	Camauba wax, Pamahyba, No. 1, yel- low, bgs., ton lots b. 1.95 2.0 Ceara, No. 1, yellow, bgs., ton	
	works	5.50 23.65	- 25.65	North Country, No. 2, refined, bgs., ton lots	
	Calcium lactate, NF, powd., pentahy- drate, dms., 24,000 lbs. or more, f.o.b. works	2.00	_	Camauba wax, North Country No. 3. centrifuged, bgs., ton lots . ib 1.10 ~ North Country, No. 3, refined, bgs	
	NF, gran., irihydrate, same basis. ib. special gran., dried grade, same ba-	2.10	-	ton lots	15
17	als	2.80 .85	-	mesh, 20c. per lb. higher. b-Carotene, in vegetable oil, semi-solid suspension, 400,000 A units	
·	d-Calcium pantothenate, USP, 100- 500-kilo lots kilo di-Calcium pantothenate, feed grads,	10.50	11.50	per gram., 331ba. or more., ib. 32.75 - b-Carotene, liq. in vegetable oil, 500,000 A units per gram., 33	
97	f.o.b. frt. aild., 250 kilos or more kilo di-Cascium pantothenate, calcium chio-	8.00	8.50	bs. or more	
32 58	ride complex, feed grade, 160 grams per lb., f.o.b., frt. alid.,	4		d-Carvone, 25-lb. dms., syn lb. 48,00 l-Carvone	25
	500 ibs or more ib. Calcium phosphate, dibasic, feed grade, 18½% P. bulk, c.i., t.i.,	2.75	-	Cascara sagrada bark, bulk 1b. 1.00 Casein, imp., acid-pracip., grd., 30- meeh, Australian, adibie,	
5	f.o.b. New Wales, Fig., Int. equald	254.00	-	Australian, Indust., same basis.	
10 10	sig		-	Cassella scid, 303 mol. wt., dms., irt. elid., 100% basis	חם
38	Calcium phosphate, dibasic, dinydrate, USP, bgs., c.l., t.l., works, frt.			"B" bgs	8
	equald	62.50 71.75 49.90	=	USP 5-9 dms	
1	Calcium phosphate, monobasic, monohydrate, food grade, bgs., c.l., t.l., works, frt.			dehydrated, bodied, tanksb74 - dehydrated, unbodied, tanksb85 - Castoroll, acids dehydrated, dmsib. 1.10 -	
	equald	50.50 54.95	<u> </u>	Caster pomace, bgs., container load,	13
	tribasic, NF precip., bgs., c.i., frt. equatd 100 ibs.	62.50	_	Castoreum, nat., cos	0
	Calcium propionate, dma., 2,000 lbs. or more f.o.b. frt. alid lb. Calcium siticale, hydraled, bgs., o.f.,	.50	~	Catechol, CP, 45-kilo dma., 50-239 dma., 1.o.b	
	Works		7	Caustic potash (see Potash, caustic). Caustic soda (see Soda, caustic). Cedarisal oil, dms	
5 6	f.o.b. works	6.50 kaphene),	-	Virginia	0
:0 i0	kgs	3.63 1.80	3.70	Cedery seed, Indian, bgs	0 4
7	USP, powd., 165-lb. dma., 6,000 fb. lots or more	2.36	_	Celery seed oil	D
,	syn., reid., 1-oz. tablets, ctns. 1,000- tb, lots or more	3.60 2.50	-	Cellulose acetate butyrate, powd., 17% butryl content, bgs., LL, divd. E	
•	white, dma	1.60 2.00 17.00	2.25	38% butryl content, bgs., divd. E b. 1.59 - 50% butryl content, bgs., divd. E b. 1.81 - 65% butryl content, bgs., divd. E b. 1.83 -	
	Candella wax, crude, bgs	1.90 2.10	- .65	Cellulose gum, pure, high vis., bgs., 24,000-ib. lots or more works.	Α.
.50	Caprio acid, comi, pure, dma ib. fanka ib. Caprio aldehyde (aldehyde C-10) dm s.,	.80	. 85	atd., low or medium vis., bos., cl., t.1.60 1.9	
	Caprolactam monomer, flake, bgs., t.l., f.o.b. shipping point ib.	.87	5.35 -	Certum concentrate CeO ₂ , 50 lbsb. 1.35 — Certum hydroxide 90% CeO ₂ , dms., worksb. 5.40 —	
00 50	Capryl elcohol sec. 92-99% tanks, f.o.b. works.	.85 .35	. -	77% CeO ₂ , drns., works	
90 90	Caprylio acid, comì. pure tanks	.7314		Cetyl alcohol, NF, cns., c.l., t.l.; divd. E.fb68½ 1,2 Chalk (see Calcium carbonate).	7
6 10	Capelcum oleoreein, NP, from donn,		-	Chamomile flowers, Hungarian, cs., b. 4.25 4.5 Roman, os., b. 4.94 Egyptian, whole b. 2.70 3.0	
00	NF, from African pepper, dms. 500,000 pungency	17.00	18.00	blue, Hungarian	
\[\frac{1}{1}\]	Caraway oil, Poland, dmaib. Caraway seed, Dutch, bosib.	22.00 .71 .58	25.00	Chicago acid, dry, bbls., frl. alid ib. 13.50 — Chiles (see Pepper, red). Chicrdene, Lech., 100% basis dma.,	
: ;	Egyptien, bgs	3178	_	Chiorendio anhydride, tech., dma., t.L.	
15	general ourgoes (GPF), bulk, o.L.	.00/0		Chloringlad parattle 40% obloring	٠.٠

Works, Chlorinaled paraffln, 40% chloring, bulk, divd., Zone 1

50% chlorine, same basis in 60% chlorine, same basis in 50% chlorine, resincus, 50% bgs., but divd., Zone 1; 1, 1, 20%

CHEMICAL PRICES	CMC, technical, 96% minimum, low or medium vis., bgs., 24,000 lbs., f.o.b. Hopewell, Va., 100% basis lb. detergent makers, f.o.b. manufacturing point. lb. CMC, purif., high vis., (see Cellulose gum) Coaltar pitch, indust., ilq., works ton. roofing, 140–155, Federal specification RP-381 Type 1, bulk works. ton. Cobalt acetate, dms., t.i., irt. alid. lb. Cobalt carbonate, powd., dms., frt.
	aldlb.

CHEMIN			detergent makers, t.o.b. manufac-		
I WI I I I III I			turing pointib. CMC, purif., high vis., (see Cellulose gun	. 84	_
			Coalter pitch, indust., liq., works . ton.	225.00	275.00
IDDICE			roofing, 140-155, Federal spacifica- tion RP-381 Type 1, bulk		
PRICES			works,ton	350.00	-
			Cobalt acetate, dms., t.l., frt. ald lb. Cobalt carbonate, powd., dms., frt.	3.61	4,25
	1000		alidlb.	6.61	8.16
WEEK ENDING JUNE 6	, 1986		Cobalt chicride, dms., 5,000 lbs. or more, ft. equaldlb.	4.15	_
Object and another Taxo 0 advocate	in sech	Mohor and	Cobalt hydrate, dms., Ll., frt. ald lb.	8.20	10.65
Chlorinated parallin, Zone 2 prices are Zone 3 prices are 2c per lb. high	her and t.l. (TIME PLICES	Cobalt metal, 99.5-99.9%, 250-kilo.	11.70	<u> </u>
are 5c per lb. higher			dms., f.o.b. NY, Chicago lb. Cobalt nephthenate, I/q., 6% Co.,		
Chlorinated rubber, 5, 10, 20 cps., bgs, Ll., divd	1.68	_	dms., dlvdlb.	2.06 2.74	3.45
40 cps, bgs., (.l., dlvd lb.	1.92	-	Cobalt nitrate, dms., t.l., frt. ald fb. Cobalt oxide, Imp., black, 72-73%	2.14	0,40
125 cps., bgs., i.l., divd	2.60 2.75	-	(Co	9.51	-
Chiorine, tanks single units works,		000 40	Cobali oxide, imp., 70-71% Co ib. Cobalt phosphate powd. 32.1% Co.,	9.78	-
f.o.b., frt. equald ton Chloroscatic acid, mono, high purity,	195.00	200.00	dms., divdib.	1.85	-
flake, 99% bulk f.o.b.			Cobalt resinate fused, 3% Co.,	.381/2	_
workslb. 2-Chioro-4-aminatoluene, tech., liq.,	.56	-	Cobalt sulfate, cryst., bgs., 10,000 lbs.		24.
dms., c.l., t.l., f.o.b. works . lo.	1.88	_	or more, frt. alid. E lb. monohydrate, dms., frt. alid lb.	2.81 4.56	3.54 6.02
o-Chiorosolline, liquid, drns., c.i., f.o.b.	1.00		Cobalt tafate, 6% Co., dms., divd lb.	2.16	_
works	1.63 1.55	-	Cocklana bark, bis	.40 1.95	.45 2.05
p-Chioroanline, sold, c.l., t.l., f.o.b. lb.	1.70	-	Cocoa butter, spot		2.00
flake, dris., c.i., same basis ib. o-Chiorobenzaldehyde, dris., t.i.,	2.00	_	Coconut oil acide, distilled, t.o.,		EO
workslb.	2.45	-	f.o.b	.52 .54	.58 .63
p-Chiorobenzaldshyde, dma., 2,000 lbs. or more, works	3.84	3.85	Cod ob, f.o.b., Gloucester, Mass.,		
o-Chiorobenzoic acid, dms. LI I. wks ib.	3.90	-	bukgal. Codeine alkaloid, NF, 25-kilo lota, .kilo.	6.50 900.00	
p-Chlorobenzoic acid, dms., 500-lb.	1.69	2.25	Codeine phosphate, USP, cns., 25-kilo		
iots or more, works	.341/2	2.20	fots	640.00	-
toch., consumers, tanka, divdlb.	.341/2	-	lots kilo	775.00	_
NF tanke, min., consumer, 4,000 gals. divd	.351/2	_	Coochy below dree	0.50	7.25
2-Chioro-4-nitroanline, paste, com-	-55.2		Copalba balsam, dms	1.50 3.75	_
modity basis, dms., t.l., l.o.b	3.08		Copper acetale, monohydrate, cryst.,	74	74
powd., same basis	3.15	-	tech., dris., t.l., works lb. Copper bromide, (cupric) 200-lb. drns.,	.71	.74
4-Chioro-2-nitroanine, paste, 172.5 mol. wt., commodity basis,			100,000-lbsper-year con-	1 24	
dma., tl., l.o.b.,	2.25	-	tracts, works	1.34	-
powd., same basisib. o-Chlorophenol, dms., c.l., frt.	2.70	-	dense, 50-lb. bgs., c.l., t.l.,	460 50	
equald	2.00	2.40	works 100 lbs. aght, fluity, 50 lb. bags, c.l., t.l.,	108.30	-
p-Chlorophanol, dms., c.l., frt. equaidb.	1.25	1.70	works	109.30	-
Chloropicrin, coml., 225-lb. cyis., t.l.,		1.10	Copper chloride (cuprio), anhyd., c.l., works	.90	_
frt. equald	88.	_	Copper cyanide, tech. dms., 24,000- lb. lots of more lb.	2.30	2 62
equaid	.181/2	-	Copper fluoborate, (cupric), liq. cono.,	Zigu	2.62
p-Chlorotoluane, tech., tanks, worksib.	1.00	_	dms., t.l., works, frt. equald	1.051/2	
Choleca/ciferol, dry, 40,000,000 units			Copper gluconate, FCC grade, 25-lb.		Ī
per gram, kilo lotsgm. Choline bitartrate, cryst., 98% min., 50	24.00	-	dm., frt. equald lb. Copper metal electrolytic wire bare.	8.50	-
klio dms., f.o.b. Springiliaid,			divd., domestic, basis ib.	.661/2	-
Mo.,	6.90	-	Copper naphthenate, ikq., 8% Gu., drns., frt. alkl	1.19	
equeous, i.c., t.t., divd. E of			Copper nitrate (cupric), puril., flake,		- T
Rockies	.24½ .37	.28 .39	dms., t.l., works lb. Copper oleate, solid, 8% Cu. dms.,	.4314	-
Choline chloride, 60% dry supplement,			works frt alld	.97	_
bulk hopper cars	.39 .4814	.48	Copper oxide, black (cuprio), dms., 80,000-ib lots, works	1.21	
Choire chloride, pharmaceutical, 50	TUTE		red (cuprous), drns., 97%, USN Type	1.21	-
klio, Icta, f.o.b. Springfield, Moklio.	5.00	_	1, (AA), 80,000-ib. tota,	1.19	4 00
Choine dinydrogen citrate, 98% min.	0.00	_	red, 90%, Type 2, same basis lb.	1.15	1.20
50 kilo lats, 1.o.b. Springfield, Mo, kilo.	8.00		Copper-8-quinolinolate, 10%, liq. emulsion, t.i., divd		
Civome green, CP extra Joht, bos		-	Copper suifaie, cryst., pentahydrate,	2.52	_
divd. E. ol Rockies	1.88	-	99% bga., c.l., f.o.b.	40 45	
medium, bgs., same basis, ib.	1.70 1.72	-	works 100 lbs. CP, pentahydrate, crystdms., i.c.l.,	48.45	-
extra deep, CP., same basis	1.74	-	Works 100 fbs.	60.00	-
Chrome orange, CP, bgs., divd. E. of Rockles	.83	.69	monohydrated, 35% Cu, dma., c.l., works 100 lbs.	75.10	_
Citrome yellow CP bbis., divd, E. of			basic, bgs., c.l., works 100 lbs.	88.30	-
Rockles	1.09	1.18	Corlander oil, USP, drns	.28	28.00 .27
irr. equekt	1.18	_	Rumanian	.28	-
grd., same basis	1.25	-	Corn oil (See Oils, Fats & Waxes marke Corn oil, crude, foots (soapstock), 95%	t report).	
500-2,000-lb, lots, works lb.	10	-	acid: New York	1316	.14
Chromium fluoride, dms., t.l., works	R1	-	Com oil acid, dma	32	-40
Chromium nitrate ding., t.l., f.o.b., 35.	1.10	_	Corn syrup 43 Be., tanks, (.o.b.		
soin., 500-ib. dms. same basis ib. Chromium oxide, hydrated, 50-lb.	.69	-	works 100 fbs. Cortisone acetate, USP, dms., 5 kbos		11.43
bgs., c.i	5.50	_	or more	.80	_
pure, bgs., c.l	1.90	2.00	Contoursed III (See City, 1-8/8 & Wg)	rea market r	eport.)

I	CMC, technical, 98% minimum, low or medium vis., bgs., 24,000 lbs.,			Cyanuric acid, dms., c.l., t.l. frt. equald
	f.o.b. Hopeweil, Va., 100% basis	1.25	-	hyde content, dms
	turing pointib. CMC.purif., high vis., (see Cellulose gu	.84 m). 225 on	- 275.00	90-92%, dms
	Coaltar pitch, Indust., Ilq., works .ton. roofing, 140-155, Federal specification RP-381 Type 1, bulk		LIU.W	Cyclohexanol tech., tanks, f.o.bb52 .66/2 Cyclohexanone tech., lanks, f.o.b.
	workston Cobalt acetate, dms., t.i., [rt. ald lb.	350.00 3.61	4.25	works
	Cobalt carbonate, powd., dms., frt. ald	6.61	8.16	works
	more, ft. equald	4.15 8.20	10.65	
1	Cobalt metal, 99.5-99.9%, 250-kilo. dms., f.o.b. NY, Chicago lb.	11.70	-	
	Cobalt nitrate, dms., tl., frt. aldfb.	2.06 2.74	3.45	
	Cobalt oxide, imp., black, 72-75% Co	9.51	_	2,4-D eckl, tech., 50-lb. bgs., c.l., t.l.,
	Cobali oxide, imp., 70-71% Co ib. Cobalt phosphate powd. 32.1% Co., dms., divd ib.	9.78 1.85	-	works, frt. equald 1.10 1.25 2,4-D butyl ester, tech., 55-gal. dma.,
	Cobalt reginate fused, 3% Co., dms	.381/2	-	tanks, same basisb. 1.25 ~ 2,4-D dimethylamine salt, t.c., t.t.
	Cobalt suifate, cryst., bgs., 10,000 lbs. or more, frt. alid. E lb.	2.81 4.56	3.54 6.02	works, frt. alidgel. 8.05 - Decyl alcohol, mixed isomers, tanks,
ļ	monohydrate, dms., frt. alid ib. Cobait tafate, 6% Co., dms., divd ib. Cocitana bark, bis	2.16 .40	- .45	perfume grade, dms
Ì	Cocoa butter, spot	1.95	2.05	feed grade, 18% P, 50-lb. bga., c.l., f.o.b. New Wales,
l	Coconut oil acide, distilled, t.o., f.o.b	.52 .54	.58 .63	Fig., frt. equald ton 233.00 - til., same basis ton 212.00 -
Í	Cod of, f.o.b., Gloucester, Mass., bulkgal.	8.50	-	butk, f.o.b. White Springs, Fla., same basiston 214.25 — divd. butk, Calif., Nev., Utah, Ariz-
	Codeine alkaloid, NF, 25-kilo lota, .kilo. Codeine phosphate, USP, cns., 25-kilo	900.00	-	divd. bulk, Wash., Ore., ida.,
	Codelne suifate, NF cns., 25-kilo lots	640.00 775.00	_	Mont,
	Codiver oil, NF, dms	0.50 1.50	7.25	tenks, divd. E
	Copalba oil, cna., drna	3.75	74	Denatured alcohol, ethyl, SD2B, tanks, divd. Egal. 1.81 –
	tech., drīs., t.l., works lb. Copper bromide, (cupric) 200-lb. drīs., 100,000-lbsper-year con-	.71	.74	SD3A, tanks, dlvd. Egal. 1.76½ – 8D23A, tanks, dlvd. Egal. 1.86 –
	tracts, works	1.34	-	SD23H,tanks, divd. E gal. 1.89 — SD29, tanks, divd. E
	dense, 50-lb. bgs., c.l., t.l., works 100 lbs. āght, flufty, 50 lb. bags, c.l., t.l.,	108.30	-	SD35A, tanks, divd. E gal. 1.88½ — Denatured alcohol, ethyl, brucine formula
	works 100 lbs. Copper chloride (cuprio), anhyd., c.i.,	109.30	-	SD40, tanks, divd. E gal. 1.83 — ethyl, optional formula, SD40, tanks.
	works	.90	-	divd, E
	lb. lots of more	2.30	2.62	West Coast divd. prices are the same as Eastern prices, except in Idaho, Oregon and Washington where a 5c.
	equald	1.05%	- 1	differential on lankcars is maintained. Descripted in a hydrochloride (See Methamphetamine hy-
	dm., frt. equald	8.50		drochloride) Delergent alkylate, straight chain do- decylbenzene, tanks, barges,
ļ	divd., domestic, basis ib. Copper naphthenate, ikq., 8% Gu., dms., frt. alid	1.19	_	f.o.b
	Copper nitrate (cupric), puril., flake, drus., t.l., works	.4314	-	c.l., works 100 lbs. 26.04 – white, paper bgs., c.l.,
	Copper oleate, solid, 6% Cu. dma., works fri alid	.97	-	works
	80,000-lb. lots, works b. red (cuprous), dms., 97%, USN Type	1.21	-	USP special, 100-lb. bgs., c.l., dlvd. New York 100 bs. 46.50 —
	1, (AA), 80,000-lb. lots, workslb.	1.19	1.20	Dextrose, hydrated comi, bgs., c.i., divd. New York 100 lbs. 24.25 —
	red, 90%, Type 2, same basis ib. Copper-8-quinolinolate, 10%, liq. emusion, t.i., divdib.			Western zone
	Copper sulfate, cryst., pentahydrate, 99% bg a., c.i., f.o.b.		_	Discetyl, flavor grade, dmstb. 9.25 15.00 Diammonium phosphate, fert. grade.
	works		_	min. 18% N, 46% P. buik, c.L, f.o.b. Fla. works ton 145.00 150.00
	monohydrated, 35% Cu, dma., c.l., works 100 lbs.	75.10	-	Diammonium phosphate, feed grade, 18%N, 20%P, bulk, c.i., l.o.b. Fla. worketon 240,00 –
	basic, bgs., c.l., works 100 lbs. Corlander oil, USP, dms lb. Corlander seed Moroccan lb.	88.30 22.00	28.00	bgs., same basis ton 250.00 – Diammonium phosphate, tech., bgs.,
	Flumanian	26	.27 -	0.1., t.1., works, frt. equald 100 lbs. 62.50 —
	Comol, crude, foots (soapstock), 95% acid: New York	131	4 .14	food grade, bgs., c.l., t.l., same ba- sls 100 lbs. 67.75 — 2,4-Di-tert-amylphanol, min. 95.5%,
	Com oil acid, dms	32	.40	tanka, works
	Works 100 lbs Cortisone acetate, USP, dins., 5 kilos	. 11.22	11.43	Diaryide yellow, OT, (yellow 14), dms., int. alid
	ormore Cottonseed meal (See Oile, Fata & Waxe Cottonseed oil (See Oile, Fata & Waxe	80	t report.)	MW 244, dms., t.l., dwd ib. 4.25 — 2,6-D-tert-Butyl-p-Crespi (see Butylated hydroxydolugra)
	elock), sold, 95%, tanks			works
	Cottonseed oil scide, diet., days Ib	13 83	_	Dibutyl phthelate, tanks, works b
	Cournarin, NF X, cryst., over 600-ib	55		tanks, same basis
	Cream of tartar (see Potassium bitartr. Creosole, coaltar, grade 1, tanks	alø).		2-5-Diohioroaniline, flake, dms.,
	1.0.D. works	1.15		fused, drns., works
	p-Crasidine, lused, dms., works lb m-Cresol, 95-96%, dms., t.l., i.o.b lb tanks, same basis	1.71	Ξ	o-Dichicrobenzene, tech., 80%, dma.
	m.p-Uresoi, 99%, dms., t.l., f.o.b. , , lb buik, same basis	94	_	tanka, same basis
	bulk, same basis	87	_	98% reid., dms., ol., same ba- als., ib. 64 tanks, same basis
	98% pure, dms., t.l., f.o.b. t bulk, same basis p-Cresol, 98%, dms., t.l., f.o.b. R	87		tanks, 10., same basis
	Cresylio acid, coaltar, dom., metanar	3. 1.15		10.000 bs. or more works so a se
	coment above 25%, resin an tricresyl phosphate grades	d 9,		Dicyclohexylamine, dms., c.l., t.l.,
	TETERS, (TL. BIKI	· to	-	lanks, same basis
	Creaylo acid, dom., metapara conter 25% or less, tanks, fet, alid in			
	Creaylo acid, dom., metapara conter 25% or less, tanks, frt. alid. It Crotonic acid, 200-lb. dms., t.l., f.o.t)58).		Dicyclopentadiene, high-purity, 97-
	Creaylo acid, dom., metapara conter 25% or less, tanks, frt. alid. It Crotonic acid, 200-lb. dms., t.l., f.o.t	o58 o. 1.50 o. 510.00 s,	_	I WYU

	Digityl carbonalo, tankwagons, f.o b.works	1.40	Diphenyl oxide, tech
	divd	1.18 <u>-</u> .'	Diphenylamina, retd works, frt, e
١	Digitive other changes of the bound of the b	ecr.	molten, tanks, w octylated, flaks works
	works	1.80 <u> </u>	Diphenylguanidine, t
	works ib Diethyl sulfate, lanks , fit alld E ib.	.97½ _ .59 _	Diphenylhydantoli dms.
	Dielhyl thiourea, dms., c i , j.i , works	249	Diphenylmethane 4, polymeric, b alid.
	Di-2-othymoxyladipale (see Dioctyl adipate Diothyl toluamide 95-97% min mota isomer. dms . 11. 1.o.b.) .	Dipropylene glycol ta Dipropylene glycol m
	works	2.75	dms., c.l., div tanks. same b
	dma., cl., f.o b	3.16 - / 3.10 - /	Di-o-tolyiguanidine, p frt. alid, Di-o-tolyithiourea, ted
4	Diethylamino, dms , c l., divd , lb. tenks, same basis lb. N,N-Diothylaniine, dms., c l., l.l., f.o b	1.15 _ 1.02 _	t.l., frt. alid Ditridacyl phthalata, ta
	works	1. 83 - 1. 75 -	Diundecyi phthaiate, to Divinyibenzena, 100 worka
	Diethylbenzene, lanks, f o b. works lb. Di-2-ethylhexyl azelalo (see Diectyl azelal	.98 - 9).	dmş, 100% basis I-Dodsoanol, syn., tank
	Di-2-ethýřhezýl phthalate (see Dioctyl phth Diethylene glycol, lanks, divd. E fb. Diethylene glycol monobulyl other,	.29% .31%	Dodecenyl succinic at c.l., t.l., divd Dodecylbenzene (see l
	dms., c.l., frt, alld E lb. tanks, frt. alld. E	.65 - .57 -	Dodecylphenol, tanks E
	Diethylene glycol monosihyl ether, dms., c l., frt, alid E ib.	.64 -	Dyes, coaltar, certified drugs and co and over, frt. ;
	tanks, frt. alid. E lb. Diethylene glycol monomathyl ether, dms., c.l., frt. alid lb.	.56 - .62 -	Blue, FD&C. No. 1 No. 2
	tanks, fri. alid ib. Dielhylene glycol monobutyl ether ac-	.64 -	Green, FD&C, No. 3 Red, FD&C, No. 3
	etate, dms., c.l., divd. E Ib. tanks, divd. E	.80 - .72 -	Yellow, FD&C, No. 5. No. 6 Dyes, coaltar, certified
	etate, drns., c.l., (rl. alid. E. lib. tanks, (rt. alid lib.	.80 - .72 -	and cosmeti divd.
ol	Diethylenetriamine, tanks, f.o.b. worksib.	1.60 1.61	Green, D&C, No. 5 No. 6
	Diethylenetriamine pentascetic acid. pentasodium salt solution.		No. 17
	tank- cars/lanktrucks, irt- oqualized	.45 - 2 60 3.00	No. 22
	Digiyool laurate, dma., ton lots lb Digiyool stearste, dma , t.l lb.	.32½ - .62 .73	No. 33 Yellow, D&C. No. 7 No. 8
	Dihydrazino sulfato, dma., works tb. Dihydrostreplomycin sulfate, bulk kilo Dihydroxyacetone, 50-kilo lota,	1.10 1.25 48 00 -	No. 10
	workskiko Di-isobutyl kelone, tanks, divdib.	40 00 - .60 -	Dyes, coalter, for ger and paper dy dex Name). f.
d.	Di-isobulylene, lanks, dvd E. Ib. Di-isobulylene, lanks, f.o.b. Hous-	.55 .67	A Bik 1 Blue black e Dyes, A Bi 9 Blue 2
8, C.	ton	.37 - .39½ - .41 -	A BI 45 Alizarine Bit A BI 90 Alizarine Br
y-	Di-iso-octyl azelajo, tanks, divd. E. ib. Di-iso-octyl phihalaie, tanks, divd ib.	.90 - .41 -	A BI 113 Navy 5R., A Gr 16 Gast 2G 33 A Or 7 11
	Di-isopropanolemine, dms., c i , fr i	.6672 -	A Or 6 RO Ex. Cont A Or 10 Wool Or G.
	lanks, same basis	.58 ½ - t.17 - 1.07 -	A Or 74 Metalized (A R 2G A R 14 Azo Rubine
	Dilauryt 3,3-ihiodipropionate, dms., t.l., frt. alid ib,	1.89	AR 18 Scarlet 4R (AR 88 Fast Red A.
	Dili oil, USP, dma	7.00 8.26 15.80 -	A R 151 Silk Red 39 A V 17 5BNS Conc AV 49 4BNS Conc.
	ib. dms	6.95 -	A Y 17 Fast Light Y A Y 23 Tertrazine E
	Dimethyl dichlorovinyl phosphate, 55-	.90 -	B Bl 9 Zinc Free B Br 4 Bismark Bro B G 1 Jade Crystak
	gal. dms., divd	3.60 - 1.16 1.18	B Gr 4 Malachite G B V 1 Methyl Violet
	tanks, divd. E	1.07 1.10	B V 10 Rhodamine B Y 2 Bond Yell SF D Bl 1 Sky Blue 6B
	Dimethyl phihalajo, janks, f.o.b	.38 - .85 -	Ex. Conc. 300% D Bl & Azurine G Co
	works	2.26 2.68	D Blk 22 Fast Black Fast Black GR
	Dimothyl sulfsto, ret. dma., c.l., f.o.b. works	.67 -	D Br 230 Resin Fr 200% D Gr 28 Resin Fest
	lanks,	1 09 120 /- 78	DR 2 4B Ex. Conc. DR 31 Brilliant - Re
	Dimethylacetamide, bulk f.o.b , lb. Dimethylamine, 25% soin , tanks, irt.	.871/1	DR 80 Fast Red 85 DR 81 Paper Red 8 DR 251 Fast Scarl
	equald., 100% basisib. 40% soln., tanks, frt. equald., 100%	631/	D Or 102 Fast Oral W8. Conc. 1509
	basis. ib. anhyd., tanks, frt. oquald. ib. N,N-Dimothylankins, j.l., f.o.b. ib.	.6317 .5412 1.03	D Y 4 Brilliant 125% Britiant Paper Ye
	N,N-Dimethylformsmide, drns., c.)., t.l.,	1.11 T T	D Y 11 Stilbens Conc
	tanks, samo basisib.	.67 49 1.22	D Y 41 Fast Ye 200% DY 27 Resin Fast
	2,4-Dinitroaniline, tons lots, f.o.b ib. Dinitroaniline, orange toner, CP, bgs., divd. E. of Rockles ib.	6.20	Dis R 1 Scarlet BA Dis R 91 Pink REL
	2,4-Dinitrochiorobenzene, crystalizing at 47°, t.l., f.o.b. Charlotte,	4.3	Dia Y 3 Yellow G. Dia Y 54 Yellow 3(Dia Or 3 Oranga G
	N.C	.96 1.95	Dis Or 37 Orange of Dis V 1 4RN Pasts
	Dinitrotoluone, mix., tech. (.o.b. works ib.	30	Dis V 26 Bordesus Dis B1 27 Blue B6
	2,4-Dinitrotoluene, dms., c.l., t.l., works.	1.28 1.20	Dis B1 102 Blue GFI 50% Paste VG 1 Jade Green
	tanka, works	90	V Bik 25 Offve TA
	Dioctyl phthelate, tanks, divd, fb. Dioctyl sebacate, 99%, tanks, f.o.b.	45	
	1,4-Dioxane, tanks, frt. etid. E	1 29 1 13 1 21	
	t.l., same basis		
	Dipentene steam-dist., tanks, f.o.b.: Fis. works	20	Endrin, tech., 95-99 Ephedrine, syn. an
	sulfate turpentine derived, tanks , lb. Dip oil (see Tar acid oil). Diphenhydramine hydrochloride, USP,		Ephedrine hydroch
•	dom., 1,000-kilo lote, dms. dvd	20.00	lees than 1 Ephedrine sulfate, lees than 1
:	Diphenyi, 99.9%, bgs. 0.1., t.l., works. b.	74	Epichlorohydrin, ter
۱ . : : ,			
•		7 14" - A 7 8 "4 1"4" (" MARCHE MAR	

Diphenyl oxide, tech. grade, tanks . fb. Diphenylamina, reid., flake, bgs., t.i.,	1.11	1.20	Epinephrine base, syn., USP, bols.,	.60	•	Ferricchioride, sewage grade, 100 per- cent basis, f.o.b. works, tank	
moltan, tanks, works	1.25 1.00	_	100-gram lotagram Epoxy reein, liquid, bulk tanks, clivd	1.31	1,41	works	
works.	7.68	_ :	Solid, bgs., t.l	1.281/2	1,3314	Ferrio oxalate, tach, gran, 50-lb, dn., f.o.b, works	
phreningratoria, pgs., (.i., 11/1 910)	2.52		Erythorbic scid, powd., gran., 100 lb. dms., t.l. or mbied t.l. f.o.b. works	4.10	4.25	Farric oxides (see kon Oxides). Farric phosphate, FCCg insoluble poveder, dms, 10,000 lbs	
Diphenylhydantoin-aodium USP, dms. b. Diphenylmethane 4.4,-di-laocyanate.	5.00	5,60	Ester gum, gum-rosin type, dms., c.l., divd., il., Md., Ky., E. States,			Ferrio pyrophosphate, solubie, puril., pearls, 50-lb, dm	1
alid	.91	_	Minneapolis, N.C., Ohio, St. Louis, St. Paul, Va., W. Va. Ib.	.75	_	Ferrio resinate, precip., 6.75% Fa. drns., ton lots frt. elkd lb.	
Dipropylene glycol, tanks, frt. alid lb. Dipropylene glycol monomethyl ether.	,45	-	Ester gum, wood-rosin type, dms., c.i., same basisb. Ethyl acetate, syn., 85-88%, tanks,	.43	.46		
tanks, same basis	.54 .46	=	divd	.41 .41½	411/2	Ferric ammonium clirte, NF, brown,	117
Oi-o-tolyiguanidine, powd., dms., t.l., frt. alid	2.92	-	Ethyl acetoscetate dms., c.l., dvd ib. tanks, dvd	1.13 1.05	_	green gran. 100 lb. dms., 2,000 lb. min., l.o.b. shipping	9
N-o-tolyithiourea, tech., eolid, dms., t.l., frt. elidb. Hitridecyl phthalate, tanks, divdib.	3.11 .60	.63	Ethyl acrylate, tanks, frt ald lb. Ethyl alcohol, syn., 190 pf., USP tax	.66 1.55	_	pt	i. of
Mundecy(phthalate, tanks, dlvd lb. Dylnylbenzene, 100% basis, tanks	.58	_	free, tanks, divd. E gal. Ethyl alcohol, absolute, 200 pf., tax ired than 190 pf., tax free.		c. higher	250-ib. dms., i.l., i.o.b. works.	
works	2.75 3.00	2.60 2.70	Ethyl gicohol, fermentation, tanks, f.o.b. works	1.06	1.28	Ferric hydroxyethylene diaminetri- ecetic ecid, industrial grade,	
Dodecenol, syn., tanke, f.o.b lb. odecenyl succinic anhydride, dma., c.l., t.l., divd lb.	.76½ .88	_	Price range attributable lo various state t Ethyl alcohol, denat. (see Denatured alcohol	oi, ethyl).	83.	sodium sait, soin., 4.5% Fe, t.c., t.t., f.o.b. works ib.	
odecylbenzene (see Detergent Alkylate). odecylphenol, tanks, min. frt. alld.			Ethyl p-aminobenzoate, NF (see Banzocali Ethyl benzoate, dmslb. Ethyl bromide, tech., 98%, dms., c.i.,	1.35	1.50	agricultural grade, sodium salt solu- tion, 6% Fe, t.c., t. t., f.o.b. works	
yes, costar, certified colors for food,	.48	.53	frt. elid. E	.7 6 1.35	_ 1.60	Ferrous fluoborate Iq. conc., cms., Ll., works, frt. equald	
drugs and cosmetics, 100 lb. and over, frt. prepaid or aid lue, FD&C. No. 1	21.20	22.60	Ethyl celulose, standard vis., 7 cps. bgs., t.l., frt. equald. E ib.	4.55	-	Ferrous gluconate. NF, t.I., works E.Ib. Ferrous naphthenate, Ikq., 6%, Fe.	
No. 2	29.15 49.50	29.22 65.00	standard vis., 10, 20, 45, 100 cps., t.l., frt. equald. E lb. medium vis., 50, 70, 100 cps., t.l., frt.	4.17	4.22	dms., dlvdb. Ferrous sulfate, moist, bulk, t.i. f.o.b.	2
ed, FD&C, No. 3	24.00 7.45	24.50 7.85	equald. E	4.25	-	workston heptahydrate, gran., bulk, t.l., f.o.b. workston	
lo. 6	6.45	6.75	USP 10,20,45,100 bgs., t.l., frt.	4.88	_	monchydrate, gran., bulk., t.i., f.o.b. works., ton	
and cosmetics, 100-lb. lots divd.	00.50		vsp (medium) 50,70,100 bgs., t.l.,	4.59	4.69	USP, powd., 400-lb. dms b. crysi., 250-lb. dms b.	
ireen, D&C, No. 5	38.50 42,80 18.86	=	Frt. equald. E	4.51 .2 8 .24	.281/2 .281/2	Fir oil, Canada dires	
lo. 17	38.90 38.25	-	Ethyl cinnamate, dms kilo Ethyl ethanolamines, mixed, dms., t.l.,	41.00	-	Fish oil, reid., alkali, tanks, c.iib. kettle-bodied, tanksib.	
lo. 22 	12.45 58.85	-	tanks, divd. E	1.23 1.15	-	ight, cold-pressed, dms., c.ib. tanksb. Fishmeal, dom., menhaden, 80%	
lo. 33	48.95 21.00	-	Ethyl ether, refined, tanks, t.o.b Ib. Ethyl hexanoate, dms Ib. 2-Ethylhexoic add, dms., c.l., t.l., divd.	.46 4.25	4.75	protein grd., bulk, f.o.b. At- tantic portton	
lo, 8	20.55 48.80 35.25	48.85	tanks divd. Eb.	.63 .57	_	f.o.b. Gulf portton Imp., Chilean, 65% protein min.,	2
lyes, coaltar, for general use in cloth and paper dyeing (by Color in-	09.20	_	2-Ethylhexyl acrylate, straight or mixed, tanks, frt. alid. E lb.	.79.5	-	bulk, c.l., t.l., ex whse., f.o.b. Atlantic and Guif ports ton.	2
dex Name), f.o.b. works A Bik 1 Blue black ex. conc	5.75	~	2-Ethylhexyl alcohol, tanks, divd ib. Ethyl fodide, cbys., works ib. Ethyl linalool, syn. 55-gal. dms ib.	.35 6.25 10.60	_	Fluoboric acid, dms., t.l., works, frt. equald	
Dyes, A Bi 9 Blue 2G ib. A Bi 45 Alizarine Biu SAP 150% . ib.	5.46 19.85		Ethyl iinalyi acetate, syn., 55-gai. dmsb.	10.65	_	delvd	
A BI 90 Alizerine Br. Cy G lb. A BI 113 Navy 5R lb.	14.13 6.55	-	Ethyl methacrylate, tanks, frt.	1.06	_	No. 22, bulk, same basis lb. No. 113, bulk, same basis lb.	
A Gr 16 Gast 2G 333% lb. A Or 7 11	22.12 3.72 4.00	-	n-Ethyl morpholine, dms., t.i., frt.	2.00-		No. 114, bulk, same basis ib. Fluosificio acid (see Hydrofiuosificio acid	d).
A Or 10 Wool Or Gb. A Or 74 Metalized Or GNAib.	4.30 6.15	_	tenks, same basisib. n-Ethyl-a-naphthylamine, dms., works	1.92 1.04	-	Fenugreek seed, Indian, bgsib. Formaldehyde, 37% methanol free (un- inhibited) divd., gulf	
AR 2G	5.13 8.85	-	Ethyl oxalate (see Diethyl oxalate). Ethyl parathlon (see Parathlon, ethyl).			44-45% (1% methanol) tanks, divd	
A R 18 Scarlet 4R Conc lb. A R 88 Fast Red A. Conc lb. A R 151 Silk Red 3B Conc lb.	5.45 6.85 4.60	-	Ethyl alicate dist. (see Tetraethyl orthosilicate, 40% available SiO ₂ . oms., t.l., f o.b. workslb.	2 8(e) . 1 45	1.45	37% (inhibited 7% methanol, divd	
A V 17 5BNS Conc	9.75 12.22	-	lanks, f.o.b. works lb. N-Ethyl-m-toluidine, tech., liq., dms.,	1.39	-	37% (inhibited 11-15% methanol) lanks, divo	
A Y 17 Fast Light Yell 2G lb. A Y 23 Tartrazine Ex Conc lb.	5.69 6.18	-	c.l., f.o.b	3.18 3.10	- -	Formanide, tenks, f.o.b	
B BI 9 Zinc Free	18.40 4.42	-	N-Ethyl-o-tolukins, dms	2.65 13.50	2.90	workslb. 95% dms., c.l., workslb.	
B G 1 Jade Crystals	9.55 6.90 6.80	-	25 lb. dms., 500 lbs. or more lb. 100 lb. dms., less than 500 lbs lb.	13.75 14.00	14.50	Fructose, cryst., 18,000 kilos or more, dms	
B V 10 Rhodamine B Ex ib. B Y 2 Bond Yell SFA 150% ib.	10.95 10.10	-	Ethylamine (see Mono-Di- and Tri-) N-Ethylaniline, dms., c.i., t.i., f.o.b.		17100	Furnaric acid, food grade, bgs. t.l., frt. equald. E	
D BI 1 Sky Blue 6B Conc	4.62 9.25	-	works	1.68 1.58	=	tach. grade, bgs., t.l., f.o.b. frt. equald.,	
D Bild Azurine G Conc b. D Bik 22 Fast Black GR b. Fast Black GR 150% b,	9.45 2.85	_	Ethylbenzens, bulk, f.o.b. Houston, Tex	<u>-22</u> .18	.23 .1814	iowa, and Balls Glade, Fia. Ib. Furturyl alcohol, tanks, f.o.b. Memphis,	
D Br 230 Resin Fast Brown BRNB	4.28 7.29	_	Ethylene brassylate, dms	16.00	18.25	Tenn. and Omaha, Neb lb.	
200%	9.15 7.96	_	works	1.30 7.55	1.305 9.25		
DR 31 Brillant- Red 128 Conc lb. DR 80 Fast Red 8BLN lb. DR 81 Peres Ped 881 B	6.16 6.15 6.65	_	trasodium salt, soln., t.c., t. t., frt. equald	.3614	_		
DR 81 Paper Red 88LP	6.25 2.47	_	Ethylene dibromide dms., c.i., frt., equald	.38	.45	W .	
WS. Conc. 150%b. D Y 4 Brilliant Paper Yell 3GX	11.25	-	tanks, frt. equald	.32 .17	.42 .1714	G sait, dma., frt. alid. 100% basisb.	
125%b. Britiant Paper Yell 3GX Liqb.	4.69 1.75	_	Ethylene glycol, indust., tanks, frt.	.31	- 11/ 19	Galic acid, 400-kilo lote kilo Garic oil, drns., Egyptian kilo Galatin, edible, 100 AOAC test, drns.,)
D Y 11 Stilbene Yellow GA. Ex. Conc	3.03	-	Ethylene glycol, monobutyl ether, tanks, divd. E	.411/2	-	I.t.I., divol	
200%	9.75 14.40	_	Ethylene glycol monosthyl ether, tanks, divd. E	.51	_	150 AOAC test, dms., l.t.l fb. 175 AOAC test, dms., l.t.l lb).).
Dia R 1 Scarlet BA	4.28 21.00	_	Ethylene glycol monomethyl ether, tanks, divd. E	.34		200 AOAC test, dms., i.t.i b 225 AOAC test, dms., i.t.i b).
Dis Y 3 Yellow G	6,84	-	etate, tanks, frt. ald. E lb. Ethylene glycol monoethyl ether ac-	.641/2	•	250 AOAC test, dms., l.t.l, ib. 275 AOAC test, dms., l.t.lb. 300 AOAC test, dms., l.t.lb.	
Die Or 3 Orange GRA	3.77		etate, tanks, ft. ald., E lb. Ethylene glycol monomethyl ether so-	.551/2	-	Gențian violet (see Methyl roseaniine o Geranol, syn., 90-92%, dms ib.	chior
Dis V 26 Bordesux BV 200%. b. Dis B1 27 Blue BGLF. b.	7.85 17.25 10.05	_	efate, tanks, frt. alid. E lb. Ethylene oxide, tanks f.o.b	.35	.A5	nat., 90-92%, dms	.: ·
50% Pasta Ib.	22.80	_	Eucalyptol, NF, dms. Portuguese .klo. Eucalyptus oil, Portuguese NF, reoti-	7.50	· - .	Gerankim oil, Moroccan	
VG 1 Jade Green Double Peate . b. VBIk 25 Offve TA Peate b.	5.50		fled, 70-75%, dms kilo NF, rectified, 80-85%, dms kilo	5.50 8.25	-	Chinese	
			Eugenol, USP, dms kilo	7.65	-	Turideh (see Palmarosa oli). Geranyl acetate, dms b. nat., dms	
						Gerariyi formate, syn., dms	
						Gilsonite, g.p., bulk, c.i., f.c.b. Bo- nanza, Utahton	. 1
						selects, same basis	. • •
Endrin, tach., 95-99%, dma., t.l lb. Ephedrine, syn. anhyd., USP, 80-oz.		_	Fennel oil, sweet, USP; cns Idlo	9,00	. In	Chinese silced	, '
Ephedrina hydrochlorida, NF, cryst.,	1.25	40.25	Fernel seed, Egypt	.33 .57	. 60	Gleuber's seit (see Sodium stuitste).	
Ephedrine sulfate, USP, cryst., dms., less than 1,000 kilos kilo			dme., c.l., works 100 ks Ferric chloride, 42 Be. photo grade	36.00	1.3 . 1	Gluconic acid fach. 50% time.; c.l., kl., f.c.b., works	

) '	• .	cent basis, f.o.b. works, tank	170.00	055 00	
1/2	1,41 1,33%	works,	176.00 .64	255.00	
72	J,JUTZ	f.o.b. works	1,65	_	
	4.25	Ferric oxides (see Iron Oxides). Ferric phosphate, FCCg insoluble pow-	440		
	7.63	der dme, 10,000 lbslb. Ferrio pyrophosphate, soluble, punil.,	1.10	1.15	
		pearls, 50-lb. dm lb. Ferrio resinate, precip., 6.75% Fa.	1.11	-	
		dins., ton lots frt. elid lb. Femic suitate, partly hydrated, 100-lb.	.45	-	W
	.46	bgs., c.l., works ton	41.00 17.00	-	
	.411/2	Fents ammonium clirte, NF. brown.	111.00	_	Glue
	-	green gran. 100 lb. dms., 2,000 lb. min., l.o.b. shipping			8 11
	-	pt	2.00 of Deriver	2.95	13
120	_ :. higher	Ferric-emmonium oxalate, fine gran., 250-lb. dms., l.l., t.o.b. works.			18 19
		Eb. Ferric hydroxyethylene diaminetri-	.42	-	22 Glue
กบ่าง	1.28	scetic acid, industrial grade, sodium sait, soin., 4.5% Fe,			108 13
).		t.c., t. t., f.o.b. works lb. agricultural grade, sodium salt solu-	.55	_ '	
	1.50	tion, 5% Fe, t.c., t. t., f.o.b. works	.64	_	16 19 22 28
	_ 1.60	Ferrous flugborate la conc., dris., Ll.,		,	2
	ינט, ו	works, frt. equaldlb. Ferrous gluconate. NF, t.I., works E.Ib.	.82V2 2.25	_	3 ⁴
	4.00	Ferrous naphthenate, Ilq., 6%, Fe.	1.17	_	3
	4.22	Ferrous suifate, moist, bulk, t.i. f.o.b. workston	30.00	-	4
	-	heptahydrate, gran., bulk, t.l., f.o.b. works	145.00	150.00	Glu
	-	monohydrate, gran., bulk., t.i., f.o.b. works., ton	170.00	180.00	Gly
	4.69	USP, powd., 400-lb. dms b. crysi., 250-lb. dms b.	.49 .61	-	U
	_ .281/2	Fir oil, Canada dires	10.20	- -	8
	.281/2	Siberia, dms	8.75 .29	.75 -	Gly
	_	kettle-bodied, tanks	.32 .34	.36	Gly
	Ā	tanks	.26	-	Gly Gly
	4.75	protein grd., bulk, f.o.b. At- tantic port ton	295.00	_	Gra
	_	f.o.b. Gulf portton Imp., Chilean, 65% protein min.,	290.00	-	1 3
	-	bulk, c.l., t.l., ex whse., f.o.b.	005.00		Gr
5	-	Atlantic and Gulf portston. Fluoboric acid, dms., t.l., works, frt.	285.00	-	(
	-	equaldib. Fluorocarbon, No. 11 bulk, tanks,	.91	-	Gr
	-	delvd,	.67 .68	.64 .74	
	(No. 22, bulk, same basis lb. No. 113, bulk, same basis lb.		1.14 .93%	Gr
		No. 114, bulk, same basis ib. Fluosificic acid (see Hydrofluosificic acid)	1.02	1.08	
	-	Fenugreek seed, Indian, bgsib.	.32	_	Gr
	-	Formaldehyde, 37% methanol free (un- inhibited) divd., gulf ib.	3 80.	.0905	
		44-45% (1% methanol) tanks, divd	.1015	.1065	Gre
	1 46	37% (inhibited 7% methanol, divd	0945	.1025	Gre Gu
	1.46	37% (inhibited 11-15% methanol) lanks, divo	.1055	.1060	
	-	Formanide, tanks, f.o.b	.39 .44	-	N
	2.90	Formic acid 90% tenks, f.o.b. works	.36½	_	Gu
	-	95% dms., c.l., works lb. Fructose, cryst., 18,000 kilos or more,	.511/2		
	14.50	dms	.90	1.03	
		equald, E	.75½	.771/2	
	-	tach, grade, bgs., t.l., f.o.b. frt. equaldb.		.621/2	
	.23	Furfural, tanks, f.o.b. Ceder Rapids, lowe, and Bells Glads, Fig. 1b.	.75	_	
	.1814 18.25	Furturylaicohol, tanks, f.o.b. Memphis, Tenn. and Omaha, Neb lb.	72	-	
•	1,305			-	Hei
	9.25	A			He
le.					He
re	46	M			He
	.45 .42			-	1
	.1714	G sait, dma., frt. alid. 100% basisib. Gallio acid, 400-kilo lotskilo	2.30 23.05	-	He
	_	Gericol, dms., Egyptianklo Gelatin, edible, 100 AOAC test, dms.,	85.00	105.00	He
1/2	_	I.t.I., divd	1.60 1.75	1.75 1.85	He
	_	150 AOAC test, dms., l.t.ltb.	1.85 1.95	1.95 2.05	"*
	0	175 AOAC test, dma., l.t.l b. 200 AOAC test, dma., l.t.l b.	2.06	2.15	
1/2		225 AOAC test, dms., i.t.i	2.10 2.20	2.25 2.35	He
1/2		275 AOAC test, dms., l.t.lb. 300 AOAC test, dms., l.t.lb.	2.30 2.50	2.45 2.85	. 1
TX		Gentian violet (see Methyl rosseniine of Geraniol, syn., 90-92%, dms ib.	ioride). 6.25		H
·	AS	nat., 90-92%, dms		_ :	He
)	. - .	Geranium oil, Moroccan	24,00	27.50 88.00	p-1
	_	Chinese		85.00	He
		Egypt		des .	Ho
٠.		Geranyl acetate, dms	5.44 10.95	6.00	
		Geranyl formate, syn., dms , lb., nat., dms	8.60 18.95	-	
•		Gilsonite, g.p., bulk, c.i., f.c.b. Bo- nanza, Utah ton	180.00		.Ho
•		aelects, same basis	180.00	· . <u>-</u>	\ \ . \ [*]
		Chinese silced	75.00	70	Ну
3.		indianklo	70.00	85.00	Ну
::	.60	Ginger elecresin, NF, bels	30.00	Live Comment	
0 .	113 🛖 🔭	Gluconic acid fach, 50% time.; c.l., t.l.,			į Hy

	1		
55.00			
-		-	
1.15	DRICES		
- 1	LINAFA		
-	WEEK ENDING JUNE 6, 1	986	
-	Glue, bone, extracted, green, jelly-		
	grams, bgs., c.l., f.o.b lb.	- .86	-
2.95	115 jelygrams, bgs., c.l., f.o.b lb. 135 jelygrams, bgs., c.l., f.o.b lb.	.78 .77	-
	164 jelygrams, bgs., c.l., f.o.b ib. 192 jelygrams, bgs., c.l., f.o.b ib. 220 jelygrams, bgs. c.l. f.o.b ib.	. 79 -87 -93	
-	Glue, hkte, 108 jellygrams, bgs., t.l., f.o.b ib.	.80	1
_	135 jeitygrams, bgs., t.i., f.o.bib. 164 jeitygrams, bgs., t.i., f.o.bib.	.85 .90	_
	192 jellygrams, bgs., t.l., f.o.blb. 222 jellygrams, bgs., t.l., f.o.blb.	.95 1.00	-
-	251 jellygrama, bgs., t.l., f.o.b ib. 263 jellygrama, bgs., t.l., f.o.b ib.	1.05 1.10	-
-	315 jellygrams, bgs., t.l., f.o.bfb.	1.15	-
_	347 jellygrams, bgs., t.l., f.o.b lb. 379 jellygrams, bgs., t.l., f.o.blb.	1.20 1.25	-
•	411 ellygrams, bgs., t.l., f.o.blb. 444 ellygrams, bgs., t.l., f.o.blb.	1.30 1.35	-
-	477 ellygrams, bgs., t.L., f.o.b., lb. Glutamic acid, 99½% dms., 100-lb.	1.40	-
0.00	lots, frt. alld	6.65	-
30.00	tanke, divd	.891/1	-
_	USP, CP, nat. 96%, lanks, divd ib. Syn. 96%, tanks divd	.8744 .8914	_
.75 -	Syn. 99.5%, tanks divd	.9 t	_
.36	Glyceryl gualacolate. 100-lb. fib. dms.	14.50	_
_	Glycofic acid (see Hydroxyacetic acid) Glyoxal 40% soln bulk, tanks.		
_ (divdib. Grapefruit oli, Fla., dmsb.	.44% 1.25	1.40
-	Catif., dms	3.45 1.40	2.00
	Graphite, amorph, powd., bgs., dms.,	.16	.40
-	ex whse		
_	Graphite, cryst., 90-92%, powd., bgs.,	.30	.60
.64 .74	dms., ex wheeb. 95-96% powd., bgs., dms., ex	.40	.75
1.14 .93%	whse	.60	.90
1.08	powd., bgs., dms., ex	20	1.00
-	whee	.80	1.20
.0905	dms., ex whseib. No. 2, 98-95%, bgs., dms., ex	.65	.75
.1065	whse	.65 (aporti)	.75
.1025	Grease oii (See Lard oil). Gualacol, tech., 5004b dms., 24,000ib.		
.1060	rffin., I.o.b. Wallingford,	2.70	
-	NOTE: Purified grades are t 0c. higher		
_	Gualacwood off, dms ib. Guar gum, edible, bgs., c.l., l.o.b.	2.50	-
_	ship't.pt	.50	.75
1.03	same basis	.50	.85
.771/2			
.621/2			
_			
_			
	Heliotropin, dms	8.00	8.25
	Hemiock oil (see Spruce oil). Hembana leayes, bis	.56	
	Heplachior dms., c.L, t.l., frt. ald.,		
	100% basis	4.55	_
-	mont, Tex, gal. 95%, tanks, f.o.b. Houston,	1.07	-
-	Tax	1.18 -65	_
05.00	Hexadecanol, syn., tanks, f.o.b lb.	.4314	-
1.75	Hexahydrophthalic anhydride, tech. dms., l.t.i., f.o.b. worke ib.	1.42	_
1.85	Hexamethylenetetramine, gran. bgs.,		
1.95 2.05	c.l., t.l., works	.55	-

	Heliotropin, dmsb.	8.00	8.25	
	Hemiock oil (see Spruce oil). Hembane leayes, bisb.	.56	_	
1	Heplachlor dms., c.l., t.l., frt. ald.,	.00		
	100% basis	4.56	_	
	Heptane, Indust., Imake, f.o.b. Beau-			
	mont, Tex, gal.	1.07	-	
	95%, tanks, f.o.b. Houston,			
	Texgal.	1.18	_	
	Heptanoic acid, syn., tanks, f.o.b.	-65	_	
	Hexadecanol, syn., tanks, f.o.b b.	.4314	-	
	Hexahydrophthalic anhydride, tech. dms., l.t.l., f.o.b. works 1b.	1.42	_	
	Hexamethylenetetramine, gran. bgs.,		-	
	c.l., t.l., works	.55	_	
	gran, dms., gd., td., works ib.	.69 .		
	par. bgs., c.l., t.l., worksb.	.60	_	
	powd.dms, c.l., t.l., worksjb.	.63	-	
•	Hexane, Indust., tanks, Works gal.	1.01	1.55	
٠:	95%, tanks, f.o.b. Houston,	4 48	•	
Ī	Tex.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1.12 .50	-	
	Hexanol, syn., tanks, f.o.b		,	
:	tanke	.32	· _	
	p-Hexyl methacrylale, dms., c.l.,	4	1 .	
•	works	751/2	-	
	Hexylene cilycol, tenks, divid	. .5 0 ·	_	
:	Hexylresorcinol, USP, dma., 25-b. lots		<u>.</u> .	•
	or more, frt. ald	30.00		
•	Homatropine hydrobromide, USP, 10-	4/1 OF	14.00	_
١.	100-oz. lote, bots oz. Homatropine methylbromide, USP, 10-	10.25	1170	
	250 oz. lois, bots oz.	8.70	10.70	
•	Horshound herb, bis	.25	.28	
•	Hydrazina hydrate, 85%, 1.t., frt.	. :		
	alid	1.54		
	55-gal, dma., t.l., frt. aldfb.	. 1,61	-	
	Hydriodia acid, puril., 47%-57%, 2-	_ 4	.: .	
	cbys., f.o.b. works.	•		•
•	Hydrosbietyl sicohol, tech., spild., dris., c.l., f.o.b. zone 1 lb.	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
•		.00	-	

dma., c.l., f.o.b. zone 1 ... ib. ... 85 tanks, f.o.b. zone 1 ... ib. ... 80 Hydrobromic ackl, 48% dma., c.l., 11 ... 38% Hydrochicric ackl., arinyd (see Hydrogar chiprida).

CHRIMICAL MARKWITING REPORTISE

1.40 2.85 4.20 25.00 2.35 4.20 2.35 CHEMICAL MARKETING REPORTER

95.00

Cărai, nai., dms. b.

syn., 55-gal. dns. 1b.
Citric acid, USP, hydrous, gran., 250ib. dms., t.l., 5b.
Citric acid, USP, anhyd., gran. 250-lb.
dms., t.l., del.
Citric acid anhyde, powder bo. higher
Citronella oii, Caylon, dms. 1b.

Java, drns. kilo
Civina, drns. kilo
Citronellal, 25-lb cans lb.
Citronellyl acetate, drns. lb.
Citronellyl formata, 25-lb. cns. lb.

Clay China (see Kaofin).
Claimers, naphtha, 140° flash tanks,
New Jersey or New York,

divd.....gat. Clove lost of indonesian, reg. drns. kilo

Clove bud oil kilo

Cloves, Brazil 10.

Cinnamic aldehyde, cns., dms. b. 1.85
Cinnamic alcohol, 25-lb. cns. b. 4.50
Cinnamon, H2. b. 1.05
Cinnamon bark of, bots b. 88.00
Cinnamon leaf of, dms. b. 2.80
Citral, nal., dms. b. 5.50

		4		fron, purif., powd., palis, 10-100-lb.
				iron oxide, black, syn., bgs., c.t., frt.
	VILIVIIV	YH		iron oxide, brown, syn., bgs., a.i., irt.
	BRIAFO			iron oxide, metalic brown, i.c.i., bgs., frt. squald
	PKIEFS		• • • • •	c.l., worksib.
	I DITAMA			syn., bgs., c.l., fit. equald lb. tron oxide, buff, net., dom, bos., c.L.
	WEEK ENDING JUNE 6	, 1986		t.ii., works, light
	Hydrochtoric acid, 20° Be, tanks,	-		other shades, bgs., c.l., frt.
	Works, East ton	55.00 60.00	65.00 70.00	Isatolc anhydride, bgs., I.o.b. works ib. Isoamyl alcohol, 95% tanks, frt. alki.
	Gulf Coast	90.00	105.00	isobomeol, 100 lb. dms lb.
	22° acid, same basis, Eastton	68.00	78.00 70.00	isobornylacetale, dma
	Gulf Coast	83.50 100.00	115.00	frt. alid
	NOTE: Prices vary and are sither freight ized depending on producer and attest-makers, grade, 20°, dvd ton	d location.	42.00	isobutylane, 99%, tanks, I.o.b.
	Hydrocortisone ecetate, micronized, oms., 25 kilos or more, gram.	.70	-	isobutyi isobutyrate, tanks, f.o.b.
	Hydrocortisons, alcohol, micronized, cims., 25 kitos or mors . gram.		_	isobutyi methacrylate, tanka, divd ib.
	Hydrofluoric acid, arhyd. (see Hydroger Hydrofluoric acid, aqueous. 70%			isobutyisalicyiste, dmg
	tanka., f.o.b. frt.	43.00	-	tanks.divd.
	Hydrofluositicio acid, 15-gal. dms., t.i., works, 30% basis	151.00		isobutyric acki, dms., c.i., t.i., divd. ib. tanks, same basis.
	tanks, 100% basis, works ton Hydrogen bromide, anhyd. cyls., extra,	100.00	140.00	isobutyronitrie, dms., c.l., f.o.b, works frt. colect
	30,000-bs., f.c.b. works ib. Hydrogen chloride, anhyd., 50-ib. cyls.,	7.00		isoeugenol, dms
	c.i., worksib. 600-lb. cyls., c.i., same basis lb. Hydrogen chloride, anhyd., tube trail-	.65 .62	-	isoniazid, powd. kilo isonicotinic acid, hydrazine (see isoniaz isononyl sicohol, dma., t. i ib.
	era, seiler's trailer, min.	.37		iso-octyl sicohol, tanks, divd. b.
	tube iraliers, buyer's trailer ib. Hydrogen chloride anhyd., tanks,	.27	-	isophthalic acid, 99%, bulk, f.o.b., Joliet, ill., min. frt. alid lb.
	works	270.00	-	isophinalonitrie, bgs., t.f., works ib.
	Works	-60	-	Isopropyl akoohol, anhyd., 99%, tanks, divd
	C.L., f.o.b., frt. equaldfb. Hydrogen peroxide, 35% tech., tarks,	.6875	-	refd., 95%, tanks, divd
	works, ft. equald	.2325 .3225	-	crude, lanks, divd
	70%, tankcars frt. equaid ib. Hydrogen suliide, iq., 99.25% min.	.45	-	leopropylamine. (see Mono-, Di- or Tri-)
	seller's tanks, works	.11 1.75	-	Itaconic acid, retd. bgs t.i
	ers. c.l., tl., dvd	2.54	-	
	Hydroxyscetic scid, tech., 70%, tanks, Bets, W. Vs.	1.95	_	
	Hydroxylammonkum sulfate, dms., t.1,	AZ		V
	p-Hydroxybenzena sulfonic acid (see p-F Hydroxybutyt methylcellulose (visc.	henolauto	nic acid).	J acid, paste, dms., works, 100% ba-
	12,000 cps.) 50 lb. bags, tl., cl. 30,000 lb. min., divd., zone			Japan wax ca
	Hydroxycitronellal dimethyl acetal,	2.10	-	Jojoba on, 55-gal. dma., f.o.b. Arizona
	p-Hydroxydiphenylamina, dms. (.).	16.55	-	Juniper berry oil, Italian kilo
	1.o.b. works	4.10	•	
	natural, drns	9.40 13.60		
	syn., dans. b. Hydroxyethyl cellulose, t.k., dvd. b.	14.80 9.50 2.07	- 2.12	
	Hydroxyethyl methylcellulose (viec. 5,000 through 46,000 cps.) 50	E.U?	2.12	Keeln water weeked & E. a. I.
	no. bags, t.l., c.l., 30,000 p. min., civd., zona 1 ib.	2.73	_	Kaolin, water washed, fully calcined, bags c.L., t.o.b. Georgia ton NF pwd., colloidai, bacteria con-
	mium, U.S.P. (visc. 4.000	4		iroled, 50 lb. bags., 5,000 lb.
	t.i., c.L., 90,000 fb. min., divd.,			Kaolin, uncalcined. No. 1 coating, bulk c.i., f.o.b., Georgia tor
	Zona 1	2.87	-	No. 3 coating tor
	(visc. 60 through 100 cps) 60 lb. bags, t.L., c.l., 30,000 lb.			filler, gen, purpose, same ha
	min., divd., zone 1	2.99	-	delaminated water washed uncel
	4,000 through 15,000 cps) 50 to bags, i.i., c.i., 30,000 ib.in., civd., zone 1	2.17		Gned paint grade 1 micror
	Hydroxypropyl methylcelulose (visc. 60 through 100 cps) 50 lb.	Z -16	-	ory-gro. amoated soft, same ba
	Dags, t.L., c.l., 30,000 lb. min., Civd., zone 1	2,84	_	Karaya gum, No. 1, powd., bbls ib No. 2, powd., bbls
	Hypophosphorous add. puril. 50%			resiling passes
	dma.,c.l., works	3.15		
	ichthammol, NF, 200-kão dms lb.	4.25	4,50	Lacquer diluent patroleum, 140F. 200F. b.r., t.c., New Jerse
	Entrockacetic acid, 96% min., dms., c.i., i.i., works		7.00	Houston, Texas
	inositot, 50-idio dina., 1000 kilos or	26.50	-	Lacquar diluent, petroleum 200F. 240F. b.r., tankoara, Nev
	more, f.o.b. worksklo locine, crude, cimaklo	13.50	22.00 18.00	York and New Jersey
	ledochlorhydroxyquin, USP, XVI 50- kilo dms., 100-499 kilos, frt.	14.21	14.59	50%, Lo., Irt. squeid.
	lodoform, NF, drns., 300-lbs., f.o.b.	35.00	45.00	Lactose, edible, reg. bos. o.1
	a-lonone, dins.	24.00 18.20	•	Laciosa, ferment grade, has
	p-tonone, dms	49 4B	<u>-</u>	Lactore, USP, rep. dms. ol. 11 6
	whole bleached, prime,		.60	USP, reg. drist., 10,000-in to
	ion lots, div. E	9.70	•	lots, irt. equald. Lactose, USP, spray dried, bgs., t.
•	ron blue, reg., bgs., I.c.I., ton lots, same beels	2.00	. 2.15	edney 10.11 10/8 14
	CHENICAL	MARK	ETING !	REPORTER Jun

			7.0		
rif., powd., palis, 10-100-lb. lots	100	Lake C, red toner. (red 53) bbis., frt.		-	Lithium hydrid more
de, black, syn., bgs., c.l., irt. equald	1.00 – .38¼ .44	Lanolin, anhyd., cosmetic. 400-lb.	4 55	1.06	Lithlum hydr dms.,
de, brown, syn., bgs., a.ì., frt. equald	.38 .44%	pharmaceutical, 400-lb. dms. works		1.08	Lithum hypod Lithum metal
de, metalic brown, l.c.l., bgs., frt. equald	.13 .15	tech., (under 2% f.f.a.), 400-lb.	.94	1.04	divi Lithlum nitrat lots
de, nat., red., dom., pure, bgs., c.l., works	A35 -	Lard (See Oile, Fals & Waxes market re Lard oil, No. 1, dms., c.i., f.o.b lb.	.34		Lithium slears
de, yellow,	.18 - .4275 -	tanks, same basis			Lithol red loo
de, buff, nat., dom, bge., c.l., t.l., works, light	.055 -	tanks, same basisb.	.33	-	çalcium, o Lithot rubina t
r shades, bgs., c.l., frt. equaldib.	.044 -	prime, burning, dms., c.i., same ba- els, Chicago	.43	-	dms., Locust bean g
nhydride, bgs., i.o.b. works ib. alcohol, 95% tanks, irt. alid.	.34½ .36½ 1.40 –	prime, burning, tanks, same ba- sisib. NOTE: 300 Mi. rad. 1 Mc. higher, exce	.36	and West	2,4-Lutidine, o Lycopodium, i 1-Lysine mo
E	.80 - 7.25 -	Coast, 3c. higher. Laurel leaves, Turkish		.68	grade
facetale, dma	.80 1.15	Laurent's acid, drums, f.o.b lb. Lauric acid, comi., pure bgs., c.i lb.	3.85	.71	
frt. elid	.45 .48 .71 -	Lauric aldehyde (aldehyde C-12). dmsb.	7.75	-	M
alcohoi, tanka, divd	.29 -	n-Lauryi methacrylate, dms., c.l., t.l., works.	1.72	_	IVI
works	.32 -	Lavandin oil, Abriaila, 30-32%, dms. lb. Lavander flowers, ord	.65	.75	Mace, East in
methacrylate, tanka, divd lb. phenylacetate, dms ib.	.42½ – .87 – 3.10 3.50	medium, bis	1.10	.90 1.19	Slauw #2.
salicylate, drns	3.45 -	40-42%, ester, cns	9.25	13.60 22.00	grade Magnesia, a
arvaib. aiva	.43 - .35 -	Lead scatate, purif., flake. 400-ib.			grade
cacid, dma., c.l., t1, divdib. sama basis	No Prices	tech., fiske, t.i., 400lb. dme.,		-	begs, c.l.
onitrie, dms., c.l., f.c.b. works frt. collect	.84 -	Lead blue, basic, sulfate, bbis., c.l., ship,t.pt., f.o.b.		_	bgs., san
same basis	.75 - 5.20 5.60	Lead carbonate. (see Lead white basic Lead chioride, 400-lb. dms., works. lb.	carbonate).	_	Magnesia, na mesi Nev.
l, powd. Nc acki, hydrazine (see Isoniazid Bicohol, dma., t. l jb.		Lead dioxide, tech., powd., 200-ib. dms., t.l., worksib.	66	.70	90%, 32 Magnesium b
sicohol, tanks, divid	.48 – .44 –	Lead fluoborate, Ilq. conc., dms., t.l., works, frt. equald b.	84	.87	ahyd Magnesium
ilic acid, 99%, bulk, f.o.b., Joliet, ili., min. frt. alid lib.	.81 – .46 –	Lead metal, divd		.1872	bgs.
ionitrile, bgs., t.i., works ib. iacetate, tanks, divd ib.	2.85 – .47 –	f.o.b. works	571/2	-	USP, lite by USP, heavy.
lakohol, anhyd., 99%, tanks,	1.38 -	frt. alid	. ,93	-	Magnesium flake
15%, tanks, dlyd gal. 11%, tanks, dlyd	1.31 - 1.25 -	t.l., works	. 321/2	-	Magnesium : flake
ether, tanks, divo	.44 - .37 -	Lead red, 95% Pb ₃ O ₄ , or leas, bga. c.l. works.	37	_	Magnesium d.o.l
lamine. (see Mono-, Di- or Tri-), i myristate, drns., t.l., E ib. scid, retd. bgs t.l	1.19 1.50	Lead rad, 97% Pb ₂ O ₄ , bgs. o.i.	371/2	_	Magnesium dms
and, reto-bys (.i	1.45 1.48	Lead, red, 98% Pb ₃ O ₄ , bgs., c.f., same basis	371/2	.401/2	equa Magnesium i
		Lead silicothromata, bga., c.i. works.			Magnesium
		Lead suifate (see Lead, blue, basic (basic suifate)	sulfate and L	ead, white,	10,0 Free die cast
		Lead, white, basic carbonate, bgs., c.i.	62	_	Magnesium Ib. d
aste, dms., works, 100% ba-		Lead, white, basic, slicate, bgs., c.i.	87	_	Magnesium c
kijo sx, ca	4.75 – 5.60 5.80	Lead, while, basic sulfate, bgs., c.i.)85	-	heavy, dm Magnesium (
producing point gai. Serry oil, Italian kilo	55.00 60.00	Lecithin, edible, tech., bleached, nor ret.dms., l.o.i., works, , k unbleached non-ret. dms., l.o.i)SB	-	Magnesium 60-li Magnesium
The state of the s	47.00 -	same basis	a34	-	Magnesium (wor
		dme., t.l., works	o. ,28 	~	Magnesium Magnesium
		Lemon off, Argentine	o. ,28 lo 14.00	-5.	bge mln.
		Calif., USP, dms.	b. 9.00	7.00 9.35	bulk, sa USP, c
water washed, fully calcined,	Ann an	italian	lo 11.28	=	10. Wor Magnesium
bags c.l., f.o.b. Georgia ton wd., colioidai, bacteria con- trolled, 50 lb. bags., 5,000 lb.	255.00 -	di-Leucine, dma., 1 kilo works kil Licorice root, whole, bis	o 60.00	90.00 .50	bgs t.l.
Mcsichad No. 1 costoo bulk	.24 -	gran,, bia	b70 b. 95	.90	bulk,
2 coating ton	94.00 - 75.00 -	Lignoaulionate (see under Ammonia fonate).	um or Sodium	n lignin sut-	wor Magnosium
4 coating	79.00 _ . 70.00 ~	Lime, chemical, pebble (quicklime bulk, 50,000 lbs., works, f.o.l	b ,		30,0 bulk, c.
ala purposa, sama ba-	58.00 _	Lime, chemical, hydrated, bulk, san	10	45.00	Magnesium dmi
insted water washed, uncal- cined paint grade 1 micron avg., came basis	400.00	basis	on 54.00	50.00 57.00	USP, n
rd. airfloated soft, same ba-	182.00 _	Lime oil, dist., Mexican, dms. Haitlan, dist., dms.	b. 8.00	=	Malathion, to Maleto acid,
howar' ppis	60.00 ~ 2.25 ~ 1.95 ~	Lime saits (see Calcium),	b. 17.60	-	kilo drums,
is, bgsib.	.51 A9V2 .51	d-Limonana, drns ki	b. 8.36	.85	Maleic anhy
		syn., 96-100% tima., works) Linatooloxide, syn., 56-asi, dm	b. 2.90 b. 7.75	3.05	tanks, wo Maio acid, p
		Linalyl acetate ex bols de ross oil, 9 92%, dris.	D. 18.00	21.00	ib. i Mandarin ol Mandello
		syn. 98-100%, dms., works Linalyi banzoate, syn., 55-gal. dms. Linalyi cinnamate, syn., 55-ga	b. 8.00	3,15 -	iots Manganese
		dms. Linalyi formate, syn., 55-gal. dms.	h rook	8.50	divi tetrahydri
200F. b.r., t.c., New Jersey		dma	ai, Ib. 850	8.55	Manganese Manganese
uston, Texas	1.25 - 1.29 -	Lindans, 25% formulation, to district tors, dma., frt. alid	M- 10 950	_	Manganea ora Ib.
240F. b.r., tankaara Maur	1.23 -	99.9% 190h., 1.o.b. Niagara Fai	is, is, 200	. =	Manganese 20
raine and west hersey gel.	1.20 1.25 1.12 -	dms	al. In 700	1	Manganese 74
Moter	1.08 _	Linden flowers, with leaves, bis, without leaves, bis, Linseed meal (see Oils, Fats & Waxe	h an	.85 1.15	84% M
%, Lc., int. equeld	62	Linseed oil fatty acid, dist., dms	MARKAT PORCE	t)	Manganese ter
B, ferment grade, hos of		Litharge, com,l., powd., bgs., o	16. .53	.67 .62	10 chemic
B. USP, reg. drug., 51, 11 64	No Prices	Lithium bromide, anhyd., dma., i	lb389	ź .60	Manganes 10
160, drust, 10,000 th to 11	.65 .89	soln, same basis	h. 8.27.		Manganesi Manganesi
e, USP, spray dried, has the	No Prices	Litrium carbonate, powd., bgs., c			Manganes
frt. equald. s., 10,000-lb. to i.l. lots, frt. equald.	.60 -	Lithium chloride, anhyd., o.l., i divd. soin: dms. o.l., t.l., divd,,	in 8.95		dns ol
	140 [] [080]	Lithum fuoride, dris., al., t.l., divd.	b. 2,94 b. 4,90		Manganee
3,000	9, 1986				1

		-					
	Lithium hydride, c.l., t.l., divd. 10,000 or more	23.50	_	Manganese re	sinate, fused, 315% Mn		
	Lithium hydroxide, monohydrato, dms., c i., t i., divd	1.93	••	, cyns., pracip. 61/2-7	int.andb.		_
	Lithlum metal, 1,000-lb. lots or more, olivid	1.07 22.70	~	run-of	uliale, fertilizer grade, -pile, 75%-78% MnSO ₄ ,		
I	Lithlum nitrate, tech., dms., 100-lb.	3.25	-	E.01 N	bgs., 50-ton cars, divid	170 00	-
	Lithium slearate; bgs., c l., frt. alid lb. Lithium sulfate, anhydrous, t l. divd lb.	1.01 3.09	-	Manganese st	cars. same basis ion ifiate, 28% Mn, gran		
	Lithol red loner, barium, dma., frj.	3.27	_	Manganese tal	il., t.l., workston lale, liq., 6% Mn, dms., lb.		_
Ì	calcium, dms., same basis ib. Lithot rubine toner (red 57), resinated,	3.50	-	Mainirol Cou	il., powd., dms., t.l.,	.60 3.02	_
	dms., frl. aldb. Locust bean gum, powd., bgsb.	5.60 6.00	6.75	Marjoram, Fren	ch	.84 .48	.72
	2,4-Lutidine, dms., t.l., frt equald kilo Lycopodium, 50-lb. dms	5.75 8.00	10.00	MB1 (888 2-Me	rceptobenzothiazole). captobenzothiazyi disuli		
l	1-Lysine monohydrochlorido, foed grade, i 0,000 lbs. divdlb.	1 35	1.40	Mulamine, bas	enylmethane 4,4,-01-1800 L. o.L. t.J., 40,000 -1 b.	yanate)	
١				min., 1., bulk, c.l., t.l., a	b. works b. same basis ib.	.51 Vs .50	.587± .58
				frt. ali d	siderhyde reetn, g.p., i.l. b.	.66	.60
	IVI			35	npounds, same ba- rude, tanks, works At-	.461/2	-
			_	iantic Co	past	.14 .14	.15 .16
	Mace, East Indian, sittings,ib. Slauw #2ib.	4.60 4.60	=	Menthol, nat., U	SP, Brazilien large and crystals, spot, cs.,		
	Magnesia, tech., light, nooprene- grade, bgs., c.l., t.l., works lb.	.75	.81	bulk syn., USP, rad	mic, 100-450 lbs. lb.	6.75 9.00	7.50 -
	Magnesia, syn., tech., chemical- grade, bulk, c.i., t.i.	000 00		works,	zothlazole, bgs., t.l., frt. aidib.	1.25	1.55
	bags, c.l., t.l., same basis ton	330.00 365.00	**	dms., w	othiazyi disulfide t.i., orks, irt. alid ib.	1.33	1.66
1	deadburned, bulk, same be- siston bgs., same basis	392.00 409.00	-	100-lb.	de NF, gran., powd., dms., f.o.b. workslb.	6.60	-
1	Magnesia, nat., tech., heavy, 85%, 150 mesh, buk, c.i., t.i., f.o.b.	408.00	-	dms., 1.	o, red, purif., 100-lb. o.b. workslb. -ib. dma., same ba-	7.00	7.25
I		232.00 265.00	-	B IS	100-ib.dms., same ba-	5.50	7.00
	Magnesium bromide, 80-lib. dms., hex- ahydrate	2.50	•	sis	ib. dms., same ba-	7.00	7.25
	Magnesium carbonate, light, tech., bgs., c.l., t.l., works, fri			8/2 Marcurous chio	ride (see Calornel).	5.50	7.50
	equald	.73 .74	.78 .80	Mercury, ammo Mesityl oxide, te	niated (see White precip srks, divdb.	Itate USP XV .46	<u>ን</u> –
	USP, heavy, bgs., c i., same basis ib. Magnesium chlorido, anhyd., 92%,	.83	-	t.l., frt.	d, gieciai, 99%, dms., equaid	.87	_
	flake or pabble dms., c.i., works	.12%	.15	d-Methamphet	ks, fri, equaldlb. amine hydrochloride,	.78	16.00
	Magnesium chloride, hydrous, 99%, flake, bgs., c.i., workslb.	.1415	-	di-Mathamphei	ternine hydrochioride, fo	12.00 4.50	16.00 7.00
	Magnesium gluconaie, 100-ib. dms. f.o.b. works, E ib.	4.25	-	Methanol, syn	., tanke, 4,000 gais., producing point, Guif	4.00	7.00
	Magnesium hydroxide, NF, powd., dms., c.i., t.i., works frt.	.78	_	Coast.	gal. see Hexamethylenetetra	.52 mine).	.71%
	equald	.22	.26vi	Methionine hy 86% at	droxyanalogue, dry, civity t.l., frt. alldib.	-86	_
	Magnesium metal, 99.8%, ingots, 10,000-lb, lots or more. I.o.b.	•••		alid	38% activity, t.i. irt.	.88	-
	Freeport, Tex	1.53 1.29	1.33	Methoxychior,	ee Racemethknine) 50% wettable powder,		
	Magnesium nitrate, tech., fiake. 250- ib. dms., t.l., works	.32	_	Methyl abletat	e, non-ret. dms., c.i.,	2.05	-
	Magnesium oxide, USP, light, bgs., c.i., works, frt. equald, b.	1.65	•	Methyl abletate	ns., i.c.i., same ba-	9.40	~
	heavy, dms., c.f., same basis fb. Magnesium oxide, tech. (see Magnesia)	1.54	-	, , , sig	acejate, East, divd.	10.00	-
	Magnesium phosphate, tribasic, tech. 60-lb. bgs., f.o.b	1.00	-	ðulk	tanks, យីvd. lb.	.85 68.50	_
	Magnesium elicate (see Talc). Magnesium elicoliuorido, bgs., c.l., t.i.	1046	.1800	Methyl alcohol (Methyl amyl alc	chol, lanks, divdlb	.55	_
	Works	.1846 .95	1.35	Melhyl anthri	etone, tks., divdlb enliate, tech., dms.,	.54/2	- 0 as
	Magnesium suifate 10% Mg. tech. bgs., mixed c.t., 10,000-lb. min., works 100 lbs.	· 13.80	14.85	Methyl banzoat		1.41 .25 1.85	2.65
	bulk, same basis 100 lbs. USP, cryst., bgs., mixed c:1.,	11.50	-	Methyl bromide	e, dist., tanks, 140,000 n., frt, alki	.584	_
	10,000-lb. mln., works 100 lbs.	14.35	15.40	Methylcelluloss	i, premium, USP (visc. rough 4,000 cps) 50 lb.	100.4	
	Magnesium sulfate, 17% Mg, toch, bgs. (synthetic monohydrate)			baga, 1	ti., ci., 30,000 lb., min., zone 1	2.73	_
	t.1., 30,000 lb. min., works 100 lbs.	18.25	-	15 cps	o, pramium USP (viac. s) 50 lb. bags, ii., ci.,		
	bulk, c.l. 100,000 lb. mln. works 100 lbs.	17.50		Mathylcellulos) ibs., dvd., zone 1 lb. e. (visc. 400 through	2.85	-
	Magnosium sulfaie, 17% Mg. CP t.l. 30,000 ib. min, works 100lbs.	19.25	•	30,000	cps) 50 lb. bgs., tl., cl., lbs., divd., zone 1: .lb. (Visc. 15 to 25 cps) 50	2.24	· -
	bulk, c.l. 100,000 lb. min., works	18.50	•	ib. bag	gs. ti., cl., 30,000 lb. lvd., zone 1lb.	2.52	_
	Magnesium tristicate, USP, powd., fib. dms. 5,000-lb, lote	.36	-	 Methyl chloride f.o.b. v 	e, indust. bulk, tanks, works	.28	-
	375-lb. lots	.83 1.82	₽ .	Methyl chlorofo Methyl cinnami	orm (see 1,1,1-Trichloros ats, dms b.	4.65	_
	Maisio acid, cryst., powd., drums, 100 kilos, i.o.b. kilos	3.20	- :	Methyl ethyl ke	i, dms	.235	-
	Maleic anhydride, bos., t.l., works, frt.	2.80	60.	Methyl formati	1,25-lb. cns lb. e, pure, non-ret. dms.,		3.80
	tanks, works, fri, squald	.55 .53	. 50	tanka, same	basis	.29	-
	Maio acid, purif, and food grades, 50- ib. bgs., t.l., c.l., divd lb.	.81	.64	Methyl heptens	ol, syn., 55-gal. dms. ib. one, pure, dms. ib.	14.50	-
	Mandarin oli (see Tangerine oli, Italian). Mandello acid, dms., 1,000 kilo		10.00	, Methyl heptin (carbonate, drns	45.00	_
	Manganese acetate, dihydrale, dms	8,00		Methyl toricine.	eid., dms b. yi ketone, tanks, divd.	7.30	9.40
	divd	,43\4 ,48 1.68		Methyl isobuty	d carrierol (see Mediud en	[ē. Bodosie ka	-
	Manganese borate printing ink drier. ib. Manganese borate, tech., dris ib. Manganese carbonate, chemical	.80	99		/ kelone, tanks, divd. ib. 3 2 (Caiff.)	35 .38	_
	orade, 46% Mn. bgs., 20,000- lb. lots or more, works lb.			aiva. zon	83 (W. of Rockies, ex- ur Califit	As	_
	Manganess Chloride, anhyd., dms., 20,000-b, iots or more lb.	.61		Methyl mether	enoi, 25-ib. ons	. 6.60 82	10.40
	74%-76% MnO ₂ , 100-lb, bgs.,			k dins	itnyi Ketone, cryst.,	14.00	_
•	84% Mr.O., same basiston	250.00	390.00	tech., 500 k	n, USP, 500 kilograms kilograms to b	10.14	-
	Manganese dioxide, syn., cryst., bat- tery grade, 90%-92% MnO.		87%	alid. E	lograms, f.o.b. kik on, tech., 80%, dms., frt ib	1 85	
	chemical, femile grade, same ba-	.70		SE INDUSTRUCTION	acetale, drns	. 1.65 . 3.60	5,40
	Manganese gluconate, FCO prade,			pent. dms. c	i. t.l. same.hopie in	1.74	-
:	100-to dms., f.o.b. works: . to. Manganese hydrate dms., divd lb. Manganese hypophosphite, NF, dms.	35	38	Cans.	Mins chloride, USP, 1- ju	E EA	<u> </u>
	Manganese metal, electrotytic, No. 1			the tributy sancy	aus, ner, 1000-lb. dms. I. ald	1 70	1.94
	dris, c.i., works,			Mathyl violet	ues metnyi fosesnisne d Oner, molybdated. PMA	hioride).	
:	Mangenese naphthenese, kg., 8% Min drie., divd.			DOIS.	divd. E. of Hookies ib	3.25	

10.40

Methyl violet toner, tungstated, PTA,			Naphthol arylide red ioner deep	0.50	
bbis., same basis	4,70	6.20	shades, bbis	9,50 7.75	-
aminodiphenyl methane)	175		∫ 2-Naphthol-3,6-disutionic acid, disodium ∫ 1-Naphthol-5-sulfonic acid (see L- acid).	1 386) Nes 1	R sait).
crude, dms., t.l., f.o.b ib. puril., fiske, same basis Ib.	1.75 2.25		1-Naphthol-5-sulfonic 8-amino acid (see	Sacid).	
Methylene di-p-phenylene di-isocyanate (see diphe	nytmethane	Naphthylamine sulfonic mixed acid (see ! a-Naphthylamine, tanks, f.o.b.	Cleve's ac	id).
4,4,-di-Isocyanate). Methylene chloride, tanks, 4,000 gal			worksb.	2.10	_
min., consumers, divd	.35	-	1-Naphthylamine-5-autonic acid (see Lat 2-Naphthylamine-4,8 disulfonic acid (see	Cassella a	3). vaid).
Methylpenianediol (see Hexylene glycol). Methylphenylpyszolone (see 1- Phenyl-3	-methyl-p	yrazolone-	2-Naphthylamine-1-sulfonic acid (see Tot	olas acid).	troj,
5).			Nestsfool oil, 20°F, t.l., f.o.b. works dms	,52	-
t-Methylstyrene, f.o.b. shipping pt lb. -Methylnephthelene, bulk, worke.gal.	.44 1.38	-	tanks, f.o.b. worksb.	.47	-
fethylthlorine chloride (see Methylene blu		i	30°F, t.i., f.o.b. works	.52 .44	-
lica, dry-grd., joint cament, plastic, 50	.071/2	_	40°F, dms., t.L., f.o.b. works	48	.49
ib., bgs., c.i., works lb. dry-grd., roofing, 20 to 80 mesh.	.urvz	-	tanks, f.o.b. works	.39	-
worksb.	.07	-	Delivered prices apply on shipments with Philadelphia, Ps.; other sress, 11	AC. NONET:	Texas, 2c.
paint or lacq., wet-grd., 325-mesh, bgs., c.i., f.o.b. works lb.	.1834		higher and West Coaet 3c. highe		
rubber, bgs., c.l., f.o.b. worksib.	.1634	_	Neomycin sulfate, USP, non-elerile, dma., 50-kilo. lots, activity ba-		
walipaper, bgs., c.l., f.o.b. works. ib.	.22	-	sis, divdkilo.	76.00	-
crocrystaline wax, petroleum, cost- ing grades, FDA, tanks,			Neopentyl glycol, sturry, 90% ., c.1., t.i., dlydib.	.522	_
workslb.	.361/2	.461/2	powder, flake, bos. t.i., clivd lb.	.598	
laminating grades, FDA, tanka, works	.381/2	.48	Nerol, tech., dms	5,30 4,60	5.75 5. 0 0
lineral oil, white, 50-65 vis., USP fight			perf.grade,dms	4,00	0.00
tanka, refygal. 65-75 vis., tanks, refygal.	2.38 2.42	-	botskilo		1650.00
80-90 vis., tanks, refy gal.	2.45	-	Tunislan, botskilo 1 Nerolidol syn. 55-gal. dmsb.	7.05	_
145-155 vis., tanks, refy gal. SP 180-190 vis., tanks, refy gal.	2.53 2.54	_	Neroth, Bromelin kilo	7.22	-
200-210 vis., tanks, refy gal.	2.56	-	Niacinamide, USP, t.i. dmskilo. Niacin NF, dms., 5,000 kilos or more,	8.00	_
340-350 vis., tanks, refygal.	2.65	-	divdkila	7.50	_
ineral spirite, petroleum, odoriess, fanks, New Jersey gal.	1.63	1.88	feed-grade, 98-99.5%, bgs., same basis	5.10	5.50
Houston, Tex. , gal,	1.78	1.79	Mickel acetate, dms., 5,000-lbs. to t.l.,		4.44
ineral apirits, petroleum, regular, tanks, New Jerseygal.	1.41	1.49	divd. E.,	1.82	-
Houston, Tex gal.	1.41	1.43	lbs. to t.I., divd. Eb.	3.45	-
Nolyboate orange, bblsib.	1.52	1.95	Nickel choride, bgs., 10,000-lbs. to t.i.,		
Nolybdenum metal, com.l., powd., 98.8%, dms., works	13.50	_	divd. Eib. Nickel fluoborate, sq. conc., dms., t.i.,	1.19	_
Molybdenum trioxide, CP, dms.,			dlvd.Eb.	1.611/2	t –
works, 24,000 lbs. or more.lb. tech., chemical, drns., 24,000 lbs. or	5.25	-	Nickel metal, electro cathodes, cs., worksib.	3.45	_
more, basia,ib.	2.65	2.85	Nickel nitrate, dms., bgs., t.i., divd.		
tech, metallurgical, dms. same basis.lb Aolybdic acid (See Ammonium Dimolybda	2. 65	2.85	E	1.18	-
donoammonium phosphate, fert.	i (e)		lb. lots, f.o.b, works 1b.	2.80	-
grade, mln. 13% N. 52% P.			Nickel sulfate, bgs., t.l., dvd. E[b. Nicotinic acid (see Niacin).	.80	.90
bulk, c.i., f.o.b. Fla. workston	155.00	_	Nicotinamide (see Niacinamide).		
Monoammonium phosphate, tech.,			Nitric acid, 36° Be., 38°Be., 40°Be., 42°Be. tanks, c.i., works NF.		
bga., c.l., t.f., works, frt. equald 100 lbs.	54.00	_	100% basis ton	185.00	_
food grade, bgs., c.l., t.l., same ba-			941/2% to 98% HNO ₃ , tanks, works,		
sis	59.25	-	100% basis lon o-Nitroaniine, flake, dms., t.i.	280.00	•
Monobutylamine, bulk, divd	1.69 .98	1.00	worksb.	1.51	-
Monochioroacetic acid, purif. (see Chioro		ld, mono).	molten, raid., tanks, works lb. molten, tech., works lb.		_
Monochlorobenzene, tanks, f.o.b ib. Monoethanolamine, tanks, frt. alid.	.424	-	o-Nitroanline, orange toner, bgs., frt.		
E ib.	.43	.46	p-Nitroanline, dms., c.l., t.l., 30,000 lb.	1.90	-
Monoethylamine, 70% aquecus tanks, frt. prepaid, 100% basis lb.	.94		min., works b.	1.63	-
anhyd., tanks, same basis lb.	.92	-	o-Nitroanisole, 100-kijo lotskilo Nitrobenzene, tanks, (.o.b	8.75 .33	.34
fonolaopropanolamine, dms., c.i., frt.	78		o-Nitrochlorobenzens, dms., t.l., c.i.,		·N-T
alid. E	.76 .6 8	-	f.o.b b. tenks, same basis	.82 .74	<u>-</u>
fonoisopropylamine, anhyd., dms.,			2-Nitro-p-crosol, tech., dms., tl., int.	. [4	_
c.i., iri, prepald	.79 .76	-	alkdb.	1.75	-
fonomethylamine, arrhyd., tanks, con-		_	Nitroethane, tanks, divd. E	2.50	-
tained basis int. equald ib.	.547	-	over 32% N, and mgl. type,	4.00	
25% soin., tanks, fri. alid. 100% basis	.57	_	worksunit-ton.	1.20	_
40-60% soin., tanks, frt. equald.	601		Nunit-ton.	1.26	1.48
ibib	.631/	-	Nitrogenous sewage sludge, proc- essd, bulk, f.o.b.		
ib. or more, frt. alld ib.	2.50	-	Chicago unit ton.		_
Vicinosodium giutamate, 50-lb. bgs.	.76	.80	NOTE: Price is per unit NH ₃ plus \$1, producer, s works, Chicago.	ar unit a.p.:	a.buk, f.o.b.
c.l., t.l., dlvdb. 100-lb. drums, c.l., t.l., dlvdlb.	.85	-	Nitrogenous tankage, processed, bulk,		
Monosodium phosphate (see Sodiumpho	sphate, r		per unit-ton NH ₂ , i.o.b. Cerrol-		
Montan wax, crude, Imp., German . Ib. dom., Calif., bgs., c.i., t.l., f.o.b.	.55	.57	ivile, Wiscunit ton	6.75	_
shipt.ptb.	.6 1	-	expanded, bulk, c.t., per unit-ton N,		
refd., dom. Calif., same basis , fb. Morphine alkaloid, NF, 25 k lots , kilo 1	018.00	-	f.o.b. Forresidale, R.I. unit ton Nitromethane, dms., Ll., divd. Eb.	2.37	_
Morphine suifate, USP, 25 k lots kito	850.00	-	o-Nitrophenol, drns., f.a.b. works., . ib.	1.00	-
Morpholine, dms., c.i., frt. elid. E ib. tanks, frt. alid., E	1.02 .94	-	p-Nitrophenol, dms., c.i., f.o.b. works	1.05	1.45
Muriatic acid (see Hydrochloric acid).			2-Nitropropane, tanks, frt. alld. E lb.	.55	-
Musk. syn., ambrette, 25-lb. cns lb. Musk. syn., kelone, dms lb.	6.00 10.75	7.00	m-Nitrotoluene, tech., dms., frt. alid.ib. o-Nitrotoluene, dms., c.l., f.o.bib.	1.1 5 .85	-
Musk. syn., xylol, dms	3.60	_	tanks, same basisb.	.48	.57
Mustard oil, syn. (see Allyl laothiccyanate).		p-Nitrotoluene, tech. dms., c.l., works		.85
Mustard seed, Brown No.1	.24	-	tanks, worksb.	.70	-
Oriental No. 1 bgsb.	.25		Nonyfphenol, tanks, f.o.b. E. of Flock-		£nız
Myrda oil (see Bay off). Myristic acid, comi., pure, t.i., bgs Vo.	1.30	_	les, min. frt. elidib. Norephedrine hydrochloride (see Phy	.49 enylpropez	£¥E&. ∀n enimaion
tanksb.	1.12		drochloride)		
Myristica oli (see Nutrieg oli).			Nutmeg oil, dist., East Indian, NF, dmskilo	26.00	27.50
Myrth gum, bgs	CZQ		Nutmegs, East Indian, whole b.	2.15	
AH			The state of the s		
				• • • •	
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				•	•
Manhat - 21-5	617				
Naphtha, high solvency (see Solvent naphtha, high solvency (see Solvent naphtha, natroleum, closesse (see Solvent)	nuria; pel eris nari	rcseum). Mha).	Orien loss iron subin culture mat t		
MAKA ITLANT DATELEMENTS TOWNS OF A SECOND			Ochre (see Iron oxide, yellow, rist.) Ocolea cymberum oli dms	2.26	2.30
Naphtha, petroleum, cleaners (see Clean Naphtha, VM&P, petroleum, tanke,		1.34	1-Octadecaryol, syn., tenks, f.o.b [b.	434	2
Naphtha, VM&P, petroleum, lanke, New Jersey and New York-	< 70	4107	1-Octanol, sym., tenks, f.o.b	.70	-
Naphtha, VM&P, petroisum, tanke, New Jersey and New York gel. Houston, Tex	1,29 1,20	- .	I	A DE	
Naphtha, VM&P, petroleum, tanke, New Jersey and New York	1.29	- .	Houston, Tex gal.	0.25	_
Naphtha, VM&P, petroleum, tanke, New Jersey and New York- gel, Houston, Tex. gal. Naphthalene, crude, dont., 78°, tanka, works. b.	1,29	-	Octyl elcohol, perfumer's grade, bots.,		•
Naphtha, VM&P, petroleum, tanke, New Jersey and New York- Housion, Tex	1.29	- -	Octyl sicohol, perfumer's grade, bots., cns	1.40	1.75
Naphtha, VM&P, petroleum, tanke, New Jersey and New York- Gel. Houston, Tex	1,29 1,20 ,22 ,231		octyl sicohol, perfumer's grade, bots., cns	1,40	1.75 4 .37
Naphtha, VM&P, petroleum, tanke, New Jersey and New York- gei. Houston, Tex. gai. Naphthalene, crude, dont., 78°, tanka, works. b. Naphthalene, phthalic anhydride grade, tanks, works. lb. Naphthalene, petroleum, 80°C., f.o.b. lb. Naphthalene, refd. balls, flakes, whole	1,29 1,20 ,22	- 4 - .82V2	Octyl sicohol, perfumer's grade, bots., cns	1.40 .337 ks. 2.60	1.75
Naphtha, VM&P, petroleum, tanke, New Jersey and New York- Gel. Houston, Tex	1.29 1.20 .22 .231 .30	.821/2	Octyl sicohol, perfumer's grade, bots., cns	1.40 .337 ks. 2.60 .75	1.75 4 .37 - .761/2
Naphtha, VM&P, petroleum, tanke, New Jersey and New York- Gel. Houston, Tex. gal. Naphthalene, crude, dom., 78°, tanks, works. ib. Naphthalene, phthalic anhydride grade, tanks, works. ib. Naphthalene, petroleum, 80°C., f.o.b. ib. Naphthalene, re(d., balls, flakes, whole salers, jobbers, dme., works. ib.	1,29 1,20 ,22 ,231	.82½ ,77 .82	Octyl scohol, perfumer's grade, bots., cns	1.40 .337 ks. 2.60 .75 .83 .66	1.75 37 .761/2 .67
Naphtha, VM&P, petroleum, tanke, New Jersey and New York- gel. Houston, Tex. gal. Naphthalene, crude, dom., 78°, tanka, works. lb. Naphthalene, phthalic anhydride grade, tanks, works. lb. Naphthalene, refd., balls, flakes, whole salers, jobbers, dme., works. Naphthalene, celd., balls, flakes, whole salers, jobbers, dme., works. Naphthalene, celd., crude, bulk, works lb. reflaed, 220 acid. same basis lb.	1.29 1.20 .22 .231 .30 .65 .16	.82½ ,77 .82 1.00	Octyl sicohol, perfumer's grade, bots. cns	1.40 .337 ks. 2.60 .75 .83 .66	1.75 4 .37 - .761/2 .67
Naphtha, VM&P, petroleum, tanke, New Jersey and New York- Jew	1.29 1.20 .22 .231 .30 .65 .16 .75	.82½ ,77 .82 1.00	Octyl sicohol, perfumer's grade, bots., cns	1.40 .337 ks. 2.60 .75 .83 .66	1.75 37 .761/2 .67
Naphtha, VM&P, petroleum, tanke, New Jersey and New York- gel. Houston, Tex. gal. Naphthalene, crude, dom., 78°, tanka, works. b. Naphthalene, phthalic anhydride grade, tanks, works. b. Naphthalene, petroleum, 80°C., f.o.b. b. Naphthalene, re(d., balls, flakes, whole salers, jobbers, dme., works. b. Naphthanic acki, crude, bulk, works b. refraed, 220 acki, same basis b.	1.29 1.20 .22 .231 .30 .65 .16 .75	.82½ ,77 .82 1.00	Octyl sicohol, perfumer's grade, bots. cns	1.40 .337 ks. 2.60 .75 .83 .56 .48 .38 .43	1.75 37 .7814 .67 .59 .63 .44

				- Carlotte
			_	
9.50		ALIMANIA		
7.75 all (880 R t	anit).	CHEMIC	- A	
acid).		UNEINIL	IH	
eve's ackd)		BRIAFA		
2.10 ent's acid).		DRIL: P.		
asselfa acid es acid).	o). (LUIAFA		
.52 .47	<u>-</u>	WEEK ENDING JUNE 6, 1	988	—
.52 .44	= }			
48 39	.49	Oleum (see Sulfuric acid, furning). Olibanum gum, tears, bgs b.	2.10 8.00	-
n 300-mile : higher; To		Olive oil, edible, Spanish, dims gai. Italian 8-type	5.10 12.00	_
		20 mesh, works ton	15.00 20.00	_
76,00	-	Optum. USP, gran. powd. 25-kilo	25.00	_
.522 .598	-	Orange oil, expressed, USP, Calif., dms., 1.o.b. plant lb.	1.20	_
5,30 4,80	5.75 5.00	expressed Valencia, dms ib. Call., dist., cns.f.o.b. plant ib.	1.00 .40	1.20
	50.00	Florida, dins	.50 1.20	.65 -
50.00 7.05	_	West Indian, bitter, NF X, cns., dms	6.50	_
7.22 8.00	_	Orange peel, bitter, Haitian bla ib. Oragano, Greeca, 30M ib.	.38 1.01	1.03
7.50	<u>-</u>	Turkey	.92 .60	.65
5.10	5.50	Origanum oil, Spanish, cnskio Orris root, Florentine, bis	35.00 4.00	- - -
1.82	-	powd., bbls., bxs	4.60 3.00	5.00 - 5.00
3.45	-	powd., bbls., bxs	4.60 3.25 .44	5.00 3.35
1.19	-	Oxalic acid, bgs., c.l., works ib. b-Oxynaphthoic acid dms. works, tech ib.	2.55	<u> </u>
1.611/2	-	Oxyquinoline base, pure, 1,000 lbs., frt. alid., ib.	8.00	_
3.45	-	Oxyquinoline suifate, 100 ibs. frt.	4.00	_
1.18	-			
2.60 .80	.90	R		
195.00	[
280.00	•	Patiedium metal, works Troy-oz.		
1.51	_	Palmoil, (see Oils, Fais & Waxes Marke Palmoil acid, dbi-dist. dmsb.	.311/2	_
1.44 1.37	_	tanks,	.42	_ .45
1.90	-	tanks	.35	-
1.63	-	porta	.11 36.00 .53	.14 -
8.75 .33	.34	Paimitic acid, 90%, tech., bagsib. tanksib. Papaverine hydrochloride, NF powd.,	.51	_
.82 .74	-	Imp. bulk	56.00 .84	-
1.75	_	Spanish, 110 AU bgs	.87	-
2.50	-	tenks, rely	.29 .33\4	.35 .39
1.20	-	140-145 F., ASTM, tanks, refy. 150-155 F., ASTM, tanks, refy.	.35 .411/2	.41½ .46
1.26	1.48	slack wax, 5% oil, tanks refy	.21	_
4.10	_	20% oil, tanks refy AMP temperatures are an arbitrary 3F	.16 higher than	ASTP.
	bшk, f.o.b.	Paraformaldenyde, 91%, flake, bgs. c.l., t.l., dvdb.	.29%	-
		95%, powd., bgs., c.t., t.l. dvd. b. Paraidehyde, tech., 96%, 55-gal. dms.,		_
7.00 6.75	-	t.i., dlvd. E	.78½ .58½ 1.75	-
8.35	_	Parathlon methyl (see Methyl parathlon) Para toner red, bbls		_
2.37 1.00	_	chlorinated, (rod 4) kgs lb. Patchouli oil, Indonesian., dms kilo	3.75	22.00
1.05 .55	1.45	Peach kernel oil, USP (see Aprico) kerne Psanut meal (see Oils, Fats & Waxes ma	i oil). vikat raport).	
1.16 .85	_	Peanut oil (see Oils, Fats & Waxes mark Pectin dom., NF, clirus, powd., 100-		
.48	.57	rdio tots divo		8.70
.83 .70	. 85 -	slid	.70 .70	_
.49	.53½	Penicilin, potașsium, non-sierie, 200- billon-unitieta, billonunita Penicilin procede sterile 50- billon	20.00	25.00
<u> Jagozia i i i i i i i i i i i i i i i i i i </u>	lemine hy-	Penicilin, proceine, sterile 50-billion- unit lots, bulk billion units, Pennyroyal oil, dms		-
26.00 2.15	27.50 2.25	Pentachiorophenol, 50-lb. bgs., tl.,		- .
F. 10	p. 447	Pentaerythritol, tech., bgs., c.i., f.o.b., frt. aldb.		.72
		Pentaerythritoi, di- and tri-isomers (see Tripentaerythritoi).	Dipentaery	
·	•	Pentaerythritol triacrylate, t.i. dma., f.o.b. works	1.60	•
		Pantobarbital, dms., 100 lbs. or more, frt. alid	7.00	
		Pentobarbital-sodium, dms., 100 lbs. or more, divd,	14.00	-
2.25 .431/2	2.30	Pentylene tetrazol, NF, dms., 200-kilo lotskilo	32.00 1.08	
.70	-	Pepper, black, Brazilen, bgs	1.98° 2.03 2.05°	-
8.25	-	Talirhamu haa	2.40	

					_			
			Phthalocyanine blue toner, water dis persable, bbls., same ba			Potassium biffuoride, tech , dms , t.l , works , frt. equald lb.	.45	49
CUEM			sis	7.05	7.75	Potassivnibitantrale, NF, gran, powd., bqs lb.		120
LUCINI			bbls., frt. alid. E. of Rock- les		10.10	Potassium borohydride, powd. dms., 100-1,000 lbs., works lb		20.00
	X .		Phtheiocyanine green toner, resinated bbis., same basis,			Potassium bromate, gran., powd., 200-lb dms., c.i., i.o b	15 00	
PRICE	6		Phthalylsulfacetamide, dms., 500- kild lotskilo)	_	workslb Potassium bromide, NF., gran, dms.,	1.06	-
PNICE	3	•	Picolines, raid, mixed, bulk kild Picric acid, purs paste, 25-lb, ctns., c.i.,	2.81	-	c.i f.o.b. works lb	112	-
			dry basis, f.o.b. Charlotte, N.C.		_	Potsssium carbonate. Iq., 47% K ₂ CO ₃ , tanks, t.w., works . 100 lbs	15 40	-
WEEK ENDING JUNE	E 6, 1986		tech., paste, 25-lb. ctns., (.l., dry ba- sis, f.o.b. Charlolte, N.Clb.		_	dms., c.l., t.l., works 100 lbs. calcinsd, 89-100% K ₂ CO ₂ , hopper	20 85	••
Perchloroethylene, dry cleaning gra distr., tanks, divd	kde, . lb	<u> </u>	Pigment green B, kgs		-	cars or trucks, works 100 lbs	32 50	-
indust, grada, consumers, tan	ks,	vz –	drns	1,500.00	2,000.00	bgs., c.l. t.l., works 100 lbs. Potassium carbonate, hydrated, 83-	36 40	-
Peri acid. dms. Permanent red 28, (red 48), calci	.lb. 2.55		Pimenio leaf oil, dms	14.5D	-	88% K ₂ CO ₂ , dms., c l., t.l., works 100 lbs	34.90	~
salts, dms., irt. alld	1b. 5.25	_	bulk, t.o.b. works. , 100 lbs dms., c.l., t.l., same		53.00	bgs., c.l., I l., works 100 ibs. Potassium carbonate, gran, puni.	33.70	-
Peru balsam, f.o.b. Petitgrain oil, Paraguay	Ib. 3.30	- 6.25	basis 100 lbs a-Pinene, perfume grade kilo		54.00	400-lb. dms., 5-din. lots. the Polassium chlorate, cryst., dms., c l.,	40	46
Petrolatum, USP, snow while, don cl., refy	S .,		tech. grade. b: b-Pinana, perfumery grade, tanks. kilo	.16	.22	works	.141/2	- w
tanks, refy USP, soft white, dms., c L, refy.	lb310	-	resin grade, tanks	.86		purif., gran., 325-lb. dms., f.o.b. shipping point	40	_
tanks, refy	1 b310 1b370	-	Elb. Piperazine citrale, 36%, dms., 1,100-	1.60	-	Polassium chloride, chamical grade. 99.95% KCl. bulk, c.l., i.o.b		
Petrolatum, USP, Lily white, lanks, refv.			ib. lots, frt. alld	2,25	2.35	workston USP cryst. dms	105.00 1.12	-
USP, cream, dms., c.i., rely	lb365 Ro .30	_	dms., t l., frt. alldlb. Piperazine hexahydrate, 44%, dms.,	2.00	-	USP gran., dms	.67 .67	_
USP, soft yellow, dms., c.l., refy tanks, refy	15350 15285	_	1,100-lb. fots, frt. alid lb. Piperazins phosphata, 42%, dms., t.f.,	1.60	-	Polassium chlorida, agricultural (see Pol Potassium chromate, purif., cryst.,		nato)
USP, amber, dms., cl., rely.	ib345 lb .280	_	ht. alid	1.60	-	dms., works	.57	-
Petroleum pitch (see Asphali, petrole Petroleum sullonate, 60-62%, sullor	nic .		works	8.92 5.00		dms., frt. alidib. Potassium cyanide, dms., 20,000-lb.	, 93 V2	-
cont., HMW, bulk, works! MMW, same basis	b 49	.49	Platinum, metal, works Troy oz. Polycarbonata resin, pelieta, nat., t.i.,	421.00	-	iots or more, i.o.b. works ib. Potassium dichromate (see Polassium	1.32	-
LMW, same basis	b49 O per 16. lowe	.4914 er on corre-	frt. alid	1,84	1.86	bichromate). Potassium (tuoborate, tech., dms., c I.,		
Sporkling molecular wis. Phonacolin USP, powd., 200-ib, dms			thophihalic, bulk, tankcars, frt. alid	.51	53	t.l., works, irt, equaldib. Polassium fluoride, anhyd., dms.,	1.40	1.42
1,000-lb. lots, divd	2.22	2.45	Isophihalic, same basia	.56	.53 .62	Potassium gluconate, dms., f.i., f.o b.	1 68	_
p-Phenetidine, dms., c.i., f.o.b k Phenobarblial, USP, dms., 500-kii	0	-	molding, g.p., hopper cars, irt.	.43	.46	works	1.45	-
Phonobarbital-sodium, NF, 500-kil	0	-	injection moiding, g.p.,hopper cars, irt. ald	.43	.46	Polassium guaiacolaultonate, 300-lb. dms., 600 lbs. or more frt.		
lots, f.o.b. works kill Phenol, syn. tanks, frt. equald	1 25	- .29	extrusion, g.p., hopper cars, same	.47	.48	equaldib.	2.10	-
p-Phenoisulionic acid, 65% soi'n. dms., c.i., lob works ib). 64	_	wire and cable, nat., hopper cars, same basis	.45	.49	Potassium hydroxide, lech. (see Potash, Potassium hydroxide, USP, pellets,	, caustic).	
ianks, same basis	L	-	wire and cable, black, same ba-	.551/2		100-lb. dms , c.l., t.l., works, frt. equald	1,29	t.31
purif. grade, same basis	2 60	<u>-</u>	Polyethylene resin, low-density, film har, hopper cars, fri alid its	.36	_	Potassium lodide, USP, gran., cryst., dms., 1,000-lb, lois divd lb.	10.72	12.39
works	1 (14	_	Clarity illm, hopper cars, frt.,	.37	_	ACS grade truckloadIb Potassium-magnasium suifate, std.,	11.32	13.55
di-Phenylalanine, dma., 25-kilo	4 5N	-	pallet shrink film, hopper cars, amo basis	.35	_	bgs, works	59.00	-
lots	מח גם	_	extrusion costing, hopper cars. same basis	.38	.42	MgSO, bulk, works Ion Potassium matabisulfate, gran , dins.	67.00	-
dms. 200-lb. lots, dvd. E Ib m-Phonylenediamine, cast, dms., c.i.	2.45	–	g.p., nopper cars, same basis ib. Polyethylane linear low-density g.p.	.38	.42	Potassium muriate, 60-62.4% min.	.44	-
t.l., f.o b.works	2 በ7	- ;	ream. blown tilm rosin	.38 .40	.40 .43\⁄₂	K ₂ O. std., buik, c.l., frt. equald., f o.b. Sask.,		
f.o b. works	7 25	_	Polyathylana resin, low-density injec-	.40	45	Canada ton soluble, line sid , f o.b	44.00	45 00
Lo.b. works	A 00	_	tion molding, g.p., hopper cars, same basis !h	.45	.48	Sask	45.00 49.00	47.00 50.00
100-kilo lots or more kilo Phenylethyl acetate, das	178 NA	185.00	line wire, CATV, power cable ib. wire and cable thermoplestic high-	.647	_	gran., f.o b. Sask ton Potassium niirate, fert, quade, std., 50-	50.50	51.50
2-Phenylethylaticohol, NF, dms ib b-Phenylethylamine, dms., 30,000 lbs	2 85	3.40	voltage, natural color, same basis	.70	.741/2	prilled		274.00 284.00
or more, Irt. ald	1 50	-	wire and cable, XLPE low voltage, 14% carbon black, same			dividual techniques dividual techniques dividual techniques de la constant de la constant dividual technique de la constant de la constant dividual techniques de la constant dividual techniques d	470.00	- LOT.UU
Phenyldyconic acid (see Mandelc acid	5,50	6.90	basis	.67У≥ .587	.72 ½ .667	Potassium oxelate, neutral, tech., fine gran., powd., 300-lb. dm., frt.	710.00	_
1-Phanyl-3-methyl-5-pyrazolone	3,50	_	Polymyxin sulfate, USP, butk, 50-billion units	.52	_	equald	2.54	~
o-Phenylphenol, drys., £1, works in	1,80	2.00	Polyoxyethylene sorbitan monos- learate, dms., 20,000-lb. lots,			C.I., WORKS	1.01 1.06	-
primenyiphenoi, bgs., th., 40,000 lbs	1 98	2.00	works	.73	-	Potassium peniaborate powder 15c. per Potassium perchiorate, dms. c.t.,	ib. higher.	-
Phenylpropanolamine hydrochlorida), D 24.00	28.00	dms., 20,000-lb. lots, worksb.	.73	<u>~</u>	Works. 1b. Potassium permanganate, free flow-	.78	-
Friendisalicytate, purit. cryst., dms.	975	_	Polypropylane resin, homopolymar, g.p., nat., t.i., int. alid b.	.45	.48	Ing, bulk, hoppor trucks, works	. 00	
Rake, E	2.25	-	copolymer, med. impact, nat.,	.50 .53	.56	50-kg. dms., same basis	1.09 1.20	-
Bid It	104	2.05	high impact, same basisib. Colored material fic. per ib. higher for each grade.	.53	.60	Potassium permanganate, USP, 50-16. kgs., works, c.l., t.l. lb.	1.17	-
Cumultiles works		.67	Polyalyrene resin, cryst., nat., hopper cars, irt. alid			Potassium persulfaio, 226-lb. dme., 24,000 lbs. or more, f.o.b.	1.38	_
Phosphate rock, Fla., land pebble, rul of mine washed, 68-68% b.p.			impact, nat, hopper cars, same ba-	.46	<u>-</u>	pisnt	78.80	_
vessel, Tampa, same basis to	5 20 AA	-	righ heat, righ impact, nat., hop-per	.51	-	Folussium pyrophosphata letrabasic.	72.50	_
Phosphoric acid, com'i, and tech grades, 75% tanks	1		expandable beads (EPS), pkging grade, 1,000-lb. lots ib.	.52	-	bgs., c.l., t.f., works, E., frt. equald	43.75	47.25
Works	21.00	_	modified, same basis. b. Polyvinyl alcohol, fully hydrolyzed.	. 6 9 .73	-	bulk, same basis 100 lbs. Potassium salicylate, USP, gran., 200-	46.00	49.50
85%, N.F. tanks, f.o.b. freight equald	96 20	_	medium viscosity, bgs., t.l.,	1.00	4.05	lb. dms., 2,000 lbs. or more, works. irt. alid lb.	1.52	_
Phosphoric acid, agricultural grade 52-54% a.p.a., tanks			her namy mydroxyzed, medium viscos-	1.05	1.05	USP, powd., 300-lb. dms., 2,000 lbs. or more, same basis lb.	1.42	_ (
works	n 911	-	Polyvinyi chloride resin, g.p., homo- polymer dispersion, bgs., t.l.,	1.00	<u> </u>	Potasalum sificate, soln., 29.8-30.2 Be., 2.5 relio, t.c., t.t.,		
basis. unit-tor Phosphorus, white (yellow) solid drus	0.45	-	g.p. suspension, bulk, same ba-	.50	-	works	12.40 16.40	14 <u>.2</u> 6
C.L., WORKS, Int. equald). 1.00	-	pipe grade, bulk, same heele to	.38 .47	_	40-40.5 Be., 2.1 ratio, t.c., t.t., works 100 lbs.	18.40	18.85
equald	t.	-	Polyvinyi chlorida, q.p. condiumer elia.	.37	.47	Polassium sticate, 40-40.5 Be., 2.1 ra- tio, dms., c.l., t.l.,		
Phosphorus pentasulfide, powd dms. c.l., works. 100 by		<u>-</u>	g.p. copolymer suspension, same	.58	.81	works. 100 lbs. electronics grade, 30-30.4 Be.,	20.40	,
Phosphorus pentoxide, rims. 1.1	45.00	=	Poppyseed Dutch has	.45 .38	.49 .37	2.1-2.2 ratio, i.c., t.t., works 100 ba.	17.10	19,65
Phosphorus sesousuifida cima cue	582	-	Polary soricitural (non Para-tu-	-	-	Potassium silicaté, dms., c.l., t.l., works100 lbs.	21,10	-
Phosphorus trichlorida, dms. c.i	b. ,38	-	Works	13.00		t.L. works.	77.00	
itrica works	b. ,40	-	ex terminal 100 basis, lanks,	18.08	-	"Ratio" indicates percentage by weight percentage by weight of K ₂ O.	nt of SIO ₂	divided by
irt. obuaid.	i., h 20	.335	198 nare, 60-82%, 400-lb. dms. c.l.,	42.35		iri. sousid	.111/2	.15
motion, tanks, same basis Prices 1-192c, per lb. higher on the y	b. ,27 Yest Coast	.305	works F	.90	1.31	Or courd. dos	.80	1.20
Philhalogyaning blue tonor and shade	b. ,85 }	_	bos. c.l. works	.35%		Potassium slamata dma (d. alid 15	2.20	3,10
bbis., frt. alid. E. of Rockles	b. 8.40	9.50 8.50	Poteasium bicarbonate, USP, gran., dims., L.L. b. Poteasium bichromete, gran., 400-ib.	.72		min 60% K-O and hard si		
		8.76	" VIIII LL. CL. WORKS BY	48		Potassium sulfate, gran., purif. 400-4	150,00	160.00
COLEMNICA CONTINUE	MAKK	ETING R	EPORTER June	9, 1986		· · · · · · · · · · · · · · · · · · ·	86	
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	ding samblepar the following for the con-	1 10 1.15 (3) biobae	-	
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	Potassium thundre eins, etc.	62 714։	-	
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	तेमाङ्ग, ११ १८०४६८ स्था न्यातीत ॥	.78		
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	Masserman gran Predmatero, adişd 1936 dayı 5 Masserman	l 12	-	;
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	kits, fit 304 (6) Processe hydrocters, fo BSP, angato opado, data data)	4 95	575	
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	Propinic acid, syn , pane tanke alsa E lli n-Propylacelalis tanks, deal lli	33 53%	34%	
	n-Propyliphiladid taske, deal 0 -	42	.44	ļ
	n-Pmpyt-p-hydrocyticuscome អាក្នា គឺមិនសែក	11 50 10 80	-	
	Tech : 500 kitch, Forb — Fish Propyl paraber (see in Propyl prhydiosy Propyl Monthfol This - 50 kilo lote or	10.36	•	
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	Prepylene, polymer grade, forti Tox and La Guif Coast points 16 chemical grade same hasis 16	17¹a 15³a	_	
	Propylene glycol, indust Tanks Lob the USP, Tanks, Lob E to	40 43	16 .41 .44	
	Propylene glycol monamothyl ettlet. lanks, that E to Propylene oxide, lanks, I o hi works.	49	-	7
	fri equalif (i) Psyllinin seed. USP powitters (ii)	47' <i>1</i> 1 50	- 1 7 5	
	Puince, dom, line, 4F-0 tops, ton lets ton medium, QUA-11 a, top, tombres ton	.70 00 00 POF	-	
	CONISO, 2-OXIO EDIDAD, 1644, TOD 1015	300 00	•	
	Pumico, and , Italian, Imes, typ., too lots forb East Coast — too medium, bys , too lots. Forb East	:480 00	-	
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	Pyrazolono roll (rod 38) idnis	.100 (t) 5 25	- 535	
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1	Quassia chips	.57	- 24 25	
	red, rims., fet pild	70 75 17.75 21 75	19.00 24.25	
	violot, dins., frt. niid lie. Oniner need, byg Ontolding spilate, USP, 1,000-ay	17.75 2.00	19.00 2.75	
	- duis., 2,000 az. oz ganna . oz. - Quhum hydrochhadib. Nf. 1,000 az	4 20	4.25	. · •
	Colors 2,000 oz. or mixe . 13 Colors sultato, USP XVIII, 1,000-13. chis., 2,000 oz. or mini. 13.	2.45 2.30	2.50 2.50	F
	Onkioliyi, dinis., t l., frl. orjimli)) tunks, sunio taisis).	1.49		į
	R			· į
	R sait tech., 304 molecular wt lb. Racemethionine, USP, 50-250	2.12		
	250-500 kfog kio	6.60 6.60	en de la companya de La companya de la co	
	500 or more kilos kilos kilo feed grade, 99% min., c.l., t.l. lb. Rapeseed oil, dms.	6.50 1.07 .58⅓	6212	· :
	dma	99 M	- ÷	.,
	Red carmine. No. 40 (see Carmine No. 4) Red precipitate. (see Mercurio oxide, red Reserpine, USP, cryat., bots., . gram.	0) }. .40	424	. ·
	Resorcinol tech., bgs., t.l., works. divd. klio. Resorcinol, USP, crysl., dms. 50 kilos	3.96;		
	powd. ding., same basis kilo.	9,35 9,90		.r
	Resorcinol monoacetate, dins., 1,000 lbs. or more. lb. Rhodamine red toner, molybdated,	1,98		<u>.</u> :
	tungstated, PTMA, dma., f.c.b.	9.26	14 77	
	Rhodinol, 25-lb. cns	11,50 105,00 15,25	105.10	
	Powd., bgs	48 61	- 70 70	
	Riboflavio, USP, 25 kilos, divd kilo	34 60 43 00	46.00	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
1	PSIDOHOUM E Mhoushat API'	1. 1. 1. 1. 1. 1.	1 1.	211

Disabase of the select the state of					d Andrea autrophicate teak autrud			
Rice bran oil, bleached, dms. t.i., ib	.91	Sodium bicarbonate, USP, powd., re grade, bga., c.i., t.i., works, ir equald	t,	_	Sodium orthosilicate, tech., anhyd., bgs., c.l., works 100bs. Sodium orthosilicate, tech., hydrated.	34.50 -		AAI
Rose of, nat., NF, Bulgarian, otto.		coerse, same basis 100 lbs fine, same basis 100 lbs	18.05 17.20	-	flake, dms., c.l., works. 100 lbs. bgs., c.l., works 100 lbs.	27.45 - 26.25 -		
Turkish, otto, bols kilo, 3850.00	3000.00	gran., same basis	17.60	-	Sodium pentachlorophenate, beads	.45 -		
Tunisian, dria	14.60	Sockum bichromate, gran., bgs. a.i., t.i., works, irt. squaid b. Sockum bifuoride, 400-lb. dms., c.i.,	57	-	o.f., 30,000-lb min	.87 — .85 —	DDICES	
Rotenone realn, 30-45%, 100-lb. dms. works	.23	frt. equald	.78	-	Sodium perborate, tetrahydrate, tech., bgs., c.l., t.l., worksib.	.321/2 .361/2	PNIVEJ	
A		Sodium bisuifate, bulk, c.i., works ton dms., c.i.,	175.00	- }	Bodium persulfinte, 225-b. dms., 24,000 bs. or more, f.o.b. plant lb.	.631/2 -	WEEK ENDING JUNE 6,	1026
		Sodium bisulfite, aninyd. bgs., c.l., t.l., works, East 100 lbs. works, West 100 lbs.	28.50 32.00	<u>-</u>]	66-lb. bgs. same basis	.62 - I-Sodium). .76 -	سندين والمساوية	1000
J		Sodium bisulfite, soin., 38%, bulk, 100% basis, works, East 100 lbs.	20.80	_	Sodium phosphate, anhyd., dibasic tech., bgs., c.l., t.l., works, frt.		Sorbitan monostearate, dms., c.l., t.l., 30,000 lb. mfn., f.o.b. worksb.	.76 -
Saccharin NF, gran., soluble, dms.		soln., 100%, bulk, works, West 100 lbs. photographic grade, 43% soln.,	20.00	-	equald	54.50 – 57.50 –	Sorbitan tristearate, cl., t.l., 30,000 lb. min., f.o.b. works lb.	.80 –
1,000-lb, lots, frt. alid lb. 2.50 Saccharin NF, powd., soluble, dma., less	2.75	Sodium borate NF, gran., bgs., c.f., works.	21. 9 0 .51		Sodium phosphate, monobasic, tech., same basis 100 lbs. food grade, same basis, 100 lbs.	55.75 59.76	Sorbitol, USP, reg. 70% aqueous, dms., c.l., f.o.b. shipping	
than 20,000-lb. lots, frt. alid lb. 3.75 Safflower oil, non-break, tanks, N.Y lb47 edible dime., N.Y., divd lb93	.50 .97	powd., same basis	.52	-	tribasic, tech., same basis. 100 lbs. tood grade, same basis. 100 lbs.	52.25	point	.36 - .30 - .70 .74
Rage leaves, Delmation, No. 1, bgs. ib. 1.75 Albanian, bgs	-	1000-5000 lbs. workslb. Sodium borohydride, stabilized water	19.86	21.90	chlorinated, same basis. 100 lbs. cryst, tech., same basis. 100 lbs.	31.50 - 30.50 -	powd., dms., c.j., i.j., worksib. Soybean meal (See Olls, Fats & Waxes m	.68 .72
laraeli	- 10.00	soin., 12% NaBH ₄ , 100% basis. 3000 gal. tankwagon, works. lb. Socium bromide, 99%, g.an., 400-lb.	17.45	-	cryst., food grade, same ba- als	35.60 –	Soybean oil (See Oils, Fats & Waxes mar Soybean oil acidulated, soapstock,	
Spanish, cns	-	dms., f.o.b. workslb. Sodium cerbonste, decahydrate, bgs.	1.04	-	works	.19 .20%	95% acid, tanks, New York Ib. Soybean oil, acid, dbl., dist., drnsib. tanks	.14 .15 .48 .59 .43 .44
Selicylamide, NF, gran., powd., dma., 2,000-ib. lots, one ship ib. 1.07 Salicylic acid, tech., dms., c.l., t.l.,	1.10	c.l., t.i., workston. Sodium carbonate, cryst. monohydrated. Sodium carbonate, monohydrated.	(see Sods, a	sh)	lb. dms., dry basis, divd lb. Sodium propionate, dms., 2,000 lbs. or more, f.o.b. frt. alid lb.	6.50 — .54 ~	s.d., dms	.47 .58 .38 .43
works	1,41	bgs., c.l., t.l., works ton Sodium carboxymethyl callulose (see C	392.00 (MC.)	- }	Sodium pyrophosphate, add, tach., bgs., ol., works, frt. equald 100 lbs.	5B.25 -	Spearmint leaves, imp., bis	2.50 2.70 10.75 11.50 12.00 -
USP, powd., dms., 1,000 lbs. or more	1.63	Sodium chiorate, bulk, t.c., t.t., f.o.b.workston Sodium chiorate, cryat., 450-lb. dms.,	420.00	440.00	tood grade, non-leavening, bgs., c.i., works. frt. equald 100 ibs.	61.25 -	Far West, Scotch	14.50 15.25 14.60 15.25
Ssioi (see Phenylealicylate). Sait, evaporated, common, 80-lb, bgs.,	_	C.l., works, E		-	Sodium pyrophosphate, ferric, dms., c.i., t.i., works	.3880 –	Spruce oil, dmsib. St. John's bread, edible, blsib.	8.00 - .29 .30
c.i., t.l., North, works80 lbs. 4.02 bulk, same basis ton 60.00	61.20	Sodium chloride, USP, gran., bgsib. Sodium chlorite, tech., dms., c.l.,		-	annyd., tech., bgs., c.l., t.l., works, irt. equald 100 bs.	44.75 -	Stannia chlorida, anhyd., dms., works ib. Stannio oxida, dms., works ib.	2.128 - 12.00 -
chemical grade, same basis 80 lbs. 4.30 Ball, rock, medium, coarse, same ba- sis	_	workslb. Sodium chromate, anhyd., dms., c.l., t.l., workslb.		1.27	bulk, hopper cars, same ba- als	42.50 -	Stannic chioride, anhyd., dnis works	N.A
bulk, same basis ton 18.00 Saitcake, dom., bulk, works, 100%	25.00	Sodium chromate, tetrahydrate, bgs., c.f., t.l., works	.64	-	sis	53.00 -	Stannic oxide, dms., works ib. Stannous chioride, anhyd., dms. wks . ib. Stannous fluoborate illa . cono. dms.	N.A 3.509 -
N ₂ SO ₄ , basis, f.o.b. works E ton 65.00 sams basis W	98.00 98.00	Sodium citrate, gran., anhyd., 200-ib.	1 95	-	dms., 1,000-lb fots or more, works, trt, equald	3.00 –	Siannous fluoborate, ilq., conc., dms., Li., works, irt equald.,ib. Stannous oxide, dms., worksib.	3.49 3.51 N.A 5
Indonesiakilo 102.00 Sarcosine, tech., tanka, worka, frt.	-	Sodium citrato, USP, gran., dihydrate, 100-lb, bgs., t.l., 1.o.b, ship-ping point	•	_	USP, powd., 200-lb. dms., 1,000-lb. kils or more, same basislb. Sodium sesquicarbonale, bulk, c.i., t.i.,	3.05 –	Stannous sulfate, dms., works	N.A. – .26 .39
equaldb50 Schaeffer's salt, paste, dms., 100%	-	Sodium cyanate, dms. 1,000-ib. fots, works	85	-	workston. bgs, c.i., t.i. works 100ibs.	170.00 - 198.00 -	single-pressed, bulk	.32 40
basis, works	- 46.50	Sodium cyanida, briquattos or gran., 99% min., 200-lb. dms, min.			Sodium silicate, solid, or glass, 3.22- 3.25 ratio, bulk, c.i., t.i.,	4E 70	Strontium nitrate, 50-15 bgs., c.i., works. 100 bs.	
Sebacic acid, CP, bgs., o.f., works., lb. 2.14 purif., bgs., c.l., works lb. 2.13	=	f.o b. works		-	works	15.70 – 27.75 –	Styrene monomer. 99.6% min., t.c., t.t., f.o.b. works ib.	.21 -
Saldiz mixture, dms., 5,000-lb. lots.ib	2 –	Sodium diacetate, FCC, 504b. bgs. t.l., divd. E. of Rockieslb.		.67	works 100 lbs. bgs., c.i., t.i., works 100 lbs.		Styrene-acrylonitrile resin, nat., bulk, f.o.b. plant	.77 –
comi., 99.5% Se. same basis ib. 10.00 Sanna leaves, Alexandria, whole and	15.00	Sodium diacetate, tech., 50-lb. dms. c.i., works	52	-	soin., 37.6° soild, 3.22-3.25 ratio, bulk, c.i., t.i., frt, equald		clear, same basis	77 .61
haif, bis	.80 .71	or mixed t.l., f.o.b. shipping point	2.60	2.85	"Ratio" indicates percentage by well percentage by welght of Na ₂ O.	ght of SiO, divided by	II I. CHILLER PROPERTY OF THE	2.00 2.10
powd., bbls., bxs	1.10 1.20	Prices W. of Denver 20, per pound in Sodium ferrocyanida, bulk, t.l., 40,000			Sodium elicofluoride, bgs., c.i., t.i., works, frt. squaid 100 lbs. Sodium stannate, dms, wks. frt. alid. E.ib.	17.95 19.75 N.A. –	Succinicanhydride, dms., c.i., t.i., i.o.b. work	1.71 -
hulled, bgs	.51	ib. min., works ib. Socium ficroborate, tech., gran., dms., t.i., works, irt. equald ib.		_	Sodium sulfanilate, dms, workslb. Sodium sulfanilate, NF XIII. powd., dms.,	.22 –	Sucrose acetate, isobutyrate, 90%	33.10 -
l.c.i., works		Sodium fluoride, white, 97%, 400-jb. dms ,cl., works, fit. equald ib.	6345	-	2,000-lb. loss	.23V2 -	dms. t.l., dlvdib. tanks, clvdib. 100%, dms., t.l., dlvdib.	1.10 -
works 93%, 200 meshton 31.00 98%, 200 meshton 32.00	32.50 33.50	100 bgs., c.l., same basis lb USP powd., 200-lb, dms., t.l. f.o.b. shipping point lb		- -	works. Gulf		Sucrose octa-acetate, denaturing grade, 100-lb. dms., 1.o.b.	
93%, 97%, 325 meshton 34.50 98.5%, 325 meshton 37.00 99.5%, 325 meshton 51.50	35.50 - 54.60	Sodium tormate, bgs., c.i., works lb Sodium gluconste, tech., 50-lb. bgs.	20	-	bulk, cl.i, East, same basis ton Sodium sulfate, pholo grade, 100-ib.	113.00 114.00	works	39.50 -
Silica, dry-grd., bgs., c.i., works, 99,9%, 400 mesh, micronized ton 72.00	75.50	2,500 lbs. or more frt. alid., lb Sodium hydride, oii dispersion, 60%	6	-	bgs., c.l., works ton Sodium sulfhydrate, flake, 70-72%,		Sulfabenzamide-sodium, dms., 600 kilos	25.00 -
99% under 15 microns, mi- cronizedton 79.50 99% under 10 microns, mi-	82.50	NaH, 167-lb. dms., 10 dms. workslb Sodium hydrosulfide. (see Sodium sui	1.86	-	dms., c.i., works, (rt. equaldton lig., 44-46%, tanks, works, irt.	500.00 -	kilos	. 20.00 23.50
cronized	105.00	Sodium hydrosulfite, drns., c.l., t.f. f.o.b. shipping point E ib	84	-	equaldton Sodium suifide, flake, dms., c.l., worke,	500.00 -	klios	
mesh, bgs., c.l., works ton 37.00 140 mesh, bgs., c.l., works ton 34.75		Sodium hydroxide, USP, peliets, 100 lb. dms., c.i., t.l., works, fri		.98	E., irt. equald ton bgs., same basis ton Sodium suitide, fused, dms., c.j.,	410.00 -	Sulfamerazine, USP, microcrystals, dms.,500 kHoskfo.	. 33,50 -
Silicon telrachlorids, tech., dms., c.i., works	· · <u>-</u> ·	Sodium hydroxide, tech. (see Soda, or Sodium hypophosphite, EN grade, 300	austic.))		works, E., frt. equald ton Sodium suifite, annyd., lech. 95-100%	240.00 ~	USP, powd., dms., 500 kiloskilo. Sulfamethazine-sodium, USP, powd. dms., 50 kiloskilo.	
Bilver bullion, Ingots, cs., Troy oz. 6.17 Silver cyanide, 80% Ag. 500-oz. lots oz. 4.147.	- '5 –	110 lb. dms f.o.b, works lb 110 lb. dms	. 1.47	1.60 1.52	bgs, f.o.b. works 100 fbs. Sodium sulfocyanide CP (see Sodium ti Sodium tetraborate (see Borax).	23.76 - ikoqyanate).	Sullamethazine, powder, dms., 500 kilos	9.50 10.00
Silver nitrate, ACS, 58.2 Troy oz. AG/ 100 avolr. oz. AgNO ₃ uz. 3.098 Sospbark, crushed, bls	8 -	Sodium lodida, USP, cryst., 300- to 600 lb. lots. dms. fri. equald fb	14.72	_	Sodium tetresulficie. 4q. 34%. dms., c.l., works., irt. equald ton	540.00 -	Suffamic acid, cryst., bgs., c.i., Lt., works 100 bs.	38.00 41.00
powd., bis	1.85	Sodium Isuryl sulfate, 30%, tanks	29	.32	Sodium thiocysnate, purif., cryst., 250- ib. dms., 5 dms. or more		Sulfanic acid, gran., dms., c.i., f.i., worksb. Sulfaniamide, NF, reg. 1,000-lb. dms.,	.38 -
bgs. c.l., works, f.o.b ton 120.00 bulk, c.l., seme basis ton 90.00 light 56%, 100- ib., paper bgs., c.l.,		Sodium ilgnin sulfonate, bgs., c.l. works 100 lbs Sodium metablsuifite (see Sodium bis	25.50	•	f.o.b. workslb. tech., anhyd. dms., 2,000 lbs. or more, workslb.		frt. equaldb. Sulfanific acid, tech., bgs., ti., f.o.b.	2.00 -
same basis ton 150.00 bulk, c.l., same basis ton 123.00		Sodium metaborate, octahydrate gran., bgs., c.l., workslk	3, 538	-	Socium thiosulfate, tech., photo- grade, anhyd., 100-b, bgs., c.i., t.i.,		Sulfaquinoxaline, vaterinary, grade,	
Soda, caustic, Ilq., 50%, sellers tanks, Guif Coast works, f.o.b., frt.	195.00	tetrahydrate, gran, bgs, c.i works	o49	-	works, frt. equald 100 bs. cryst. pentahydrate, c.l., t.l., same		Suitur, crude, bright, molten, dom., f.o.b. veasels, Gulfportslong-ton	
equal., 76% Na ₂ O ton. 175.00 73%, same basis ton. 205.00 flake, 76%, 400-lb.dms, c.i., works ton. 500.00	225.00	c.l. works	b93	-	Sodium titanate, dms., o.l., works ib. Sodium trichloroscatate, 95%, 50-ib.	1414 -	f.o.b. La. refy long-ton recovered, divd., Houston . long-ton	125.50 - 125.50 -
solid, 76%,700-fb.dms, c.l, workston. 520.00		works	b87 b70	. . 80	bga., c.l., frt. ald. E lb Sodium tripolyphosphate, tech., bga., c.l.,	28 -	ex terminal, Flotterdam long ton f.o.b. tanks, Alberta, Canada, for US delivery long-ton	
gran., 75%,450-lb.dms,c.i, works	-	Sodium metaphosphate, tech. bgs o.l., f.o.b. shipping pt. fr equald 100 bs	1.		til, works, frt, squald, . 100 lbs. bulk, hopper cars, same basis, 100 lbs. food grade, bgs., c.i., t.i., same ba-	37.50 –	derk, ex-Temps, Fig , long-ton Sulfur, crude, 99.5% min. purity, comi.	187.50 -
Works	s in West 70c.	food grade, bgs. c.l. f.c.b. frt, squak	d. s. 68.25	_	sis	48.50 -	flour, 50-to bgs., c.l. mines basis 100 bs. lump, same basis 100 bs.	. 18.60
higher for solid, and \$20-\$30 ton higher beads. Sods, sal., conc., box. of.	r:for gran, and 	Sodium metaalicate, anhyd., bgs., c works	s. 27.25	-	dms., 10,800 lbs. or more, frit. slid	5,00 , 5,50	Suifur, refd., 99.5% min. purity, rolls 50-lb. bage, c.i., mines ba-	
Sodium acetate, anhyd, box of	3.85	pentahydrate, bgs., c.l., f.c.b. ship ping point 100 lbs	5 8. 18.95	· • • .	more, same basis	8.00	flour, light, 50 to bgs., same ba-	
Sodium acetate, USP 60% oran 100-		Sodium molybdate, anhyd., dms.f.o.l	6 17.20 D.		Sodjum-formaldehyde sulfoxylate, dma., t.i., f.o.b. works		Suitur, refd., sublimed, NF, 99.86% min. purity, 50-lb., bgs., o.l.	* * * * * * * * * * * * * * * * * * *
Sodium alginate, NF, white powd.	7 <i>–</i> · · · · · · · · · · · · · · · · · · ·	works, 100 lbs and over il cryst., dms., t.l., same basis il Sodium naphthionate, dms., c.l., t.l.,	b. 4.12		Sodium-zirconyl sulfate, dms., 1,000- b. lots or more, works. : . : ib.	.28 -	mines beefs 100 lbs. Suifur, rubbermakers, 99,5% min. pu-	28.00
b. lots of more 100-		f.c.b, works	b. 2.00	· •	tech., drs., any quantity, works., ib. Solvent naphthe, petroleum, straight	16 -	ity, comil, reg., 50-lb, bgs., c.i., mines basis 100 lbs. fine, 96% min. passing through 325	14.60 -
Sodium antimonate, bgs., c.L., divd. E. ib. 1.49 Sodium ascorbate, USP, dms., 100	1.50	frt. equald	3,,	292.00	aromatio, b.r. 320°-350°F, 56°F m.a.p., lanks: New Jersey	1.52	mesh, same basis 100 bs. Sulfur dichloride, dris., c.i., works, irt.	. 18.10
Sodum banzoate, tech., bos., cl. + (10.50	bulk, c.l., works	on 250.00 or		Houstongal.	1,41 — 1,54 —	equald	.24
Sodium benzoale, USP, 50-lb, bne	0V± -	Guil whee	on 200.00	214:00	Solvent naphtha, petroleum, atraight 410°F, 80°F m.e.p.; tenks: New Jersey	و هند این	cers, dine., i.o.b. worke, , ton tenke, works	1 276.00 1 210.00 220.00 8
ton-lots, same basis	3½ 8½	imp., sgrtcultural, bulk, c. same basis,	ON INVIOUS.		Houston	1,30 1,30 1,35	Bulfut monochloride, dins., c.i., works.	22/5
ton-lots, same basis	Ž –	(r), equald;	a. 37.25		June 9,1986	2.20 3.10 3.10 CHICAGO	Inrika, same bease	こうしょう 人名英格兰 にっこ 二年 むりり
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						en haarte used sure	Party and the state of the stat	

WEEK ENDING JUNE 6,	1986	
Sulfung acid, virgin 100% tanks, works.		
East Cosst ton	71.76	95.90
Gulf Coast ton	75.00	86.40
Midwest	80.25	_
Southeast ton	88.15	-
West Coast ton	85.00	
NOTE: For prices on 60 and 66 Be.,		
.9319, respectively. For price of		
is, add \$3-\$4 to above prices and		y 1.045.
Sulfuric acid, smelter, 100% tanks, work		
Gulf Coast ton	48.00	52.00
New Mexicoton	20,00	25.00
Southeast ton	63.15	
93%, lanks, divd., Northwest ton	60.00	65.00
Sunflowerseed oil, crude, f.o.b. Min-		
neapolislb.	.18	.20
Superphosphate, triple, 46% or more,		
a.p.a., run-of-pile, bulk, c.i.,		
Flaunit-ton	2.76	3.05
bulk, gran., c.l., Fla ton	160.00	165.00

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2,4,5-T acid tech., 50-b. bgs., c l., t.l., works b. 2,4,5-T. iso-octyl ester, tech., 55-gel. dms., c.l., t.l., works, frt.	2.50	-
equald	.93 .82.	_
tanks, same basis	.91	-
Taic, dom., grd. New York bgs., c.!., works	84.00	_
99.5%, 325 mash, bgs., c.l., works	84.00	90.00
cronized, bgs., c.l., works ton	187.00	238.00
625 mesh, micronized, bgs., c.l., worksion	200.00	_
dom., ord., Calif. grd., bgs., c.l., works	90.00	_
ord., Vermont, elf-color grd., egs., c.t., workston	138.00	_
Imp., Canadian, grd., bga., c.i., workston	70.00	84.00
Tail oil, crude, Southeast, tanks, works, irt. equald ton	175.00	195.00
Tall oil, refd., acid, same basis lb. dist _ tariks, same basis lb.	.31 .21	.23
Tall oil acids, 2% or more rosin, tanks, works, iri. equald	.2314	.251/2
less than 2% rosin acid	.27	.28
Tallow, fally ecids, tech., non-ret.		70
dms.,c.l., dvdlb. tsnks, divdlb.	.37 .29	.40 .45
hydrogenated, tech., flake, bgs., c.l., divid	.37	.33
tanks, divd	.35 10.50	.42 11.00
liakan, dms	35.00	-
New York, bulkunit-ton Tankage, fert. grade (see Nitrogenous)	5,50 process jan	- kace).
(annic acid, NF, Italiy, bbis., 1,000-lb.	8.09	-
tech. powd., dms	4.62	-
works	1.40	-
50-53%, f.l., drns., f.o.b. works . gal. Testeric acid, NF, bos.	1.87 1.20	1.50
Tellurium, metallurgical, f.o.b. works lb. Terpin hydrate, NF, imp., cryst., powd	12.00	_
36 kilo druma, t.o.b. ship. pt., frt. equald		
Terpineol	1.10	1.50
prime, dime	1.35	2.05
Tetrachioroathylene, tech. (see Perchi Tetrachioroathylene, USP, dms., c.l.,	proethylene).
t.L. works	301	i -
works	. 1.53	1.66
Tetraathylene givcol discrylate. 1.1		
dins., f.o.b. works, b Tetracthylenepentamine, tanks, same	3	4 75
basis. Tetraethylthiuram disulfide, tach.		1.75
flake, dms., LL, frt, 85d b Tetrahydrofuran dms., c.k, t.L, f.o.b		2.07
works	98	
Tetrahydroftirfuryl alcohol tanks, f.o.b Memphis, Tenn	.79	_
Tetrahydrolinaloot, syn., dyns). 7.20	-
C.I., t.I. I.o.b. works)65 um phosobet	e, teirahaa
totrabasic.)	dium pyrop	hosphate
Thalium metal, divd	5.00	10.00
Theobroasine, bulk to b. works & Theophylline, USP, annyd, 50-kil	3. 4.00	
oms., 10,000-kilo tots kil Thiamno hydrochiorkie, USP 100-kil	o 12.00	12.05
alone (fluid	07 00	Ma 04

27.00

CHEMICAL MARKETING REPORTER

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Description of a doise, fit als. fb.

Thypilasin urgan toners, prolybdated,

Thionyl chloride, high-purity, 99.6%,		Turpentine, crude sulfato tanks, f.o.b. Southeast works gal
24,000-lb. mln. t.l., dms. frt. oquald lb. Thorium nitrate, purif., dms., 100-lb.	.55 -	
lots or more, works lb di-Threonine, dms 10 kilos wkskilo. Thymaleaves, French, bgslb.	2.75 - 126.00 - 90 .95	
Spanish, bys	.68 1.10 12.00 - 22.00 -	
NF, white, ams	3.75 6.15	Ultramarine blue pigments, 550- 2,000
works	52.30 56.20 N.A. –	lblats, works
ton lots, frt. alidb. alurry shipments, 50-ton lots, dry ba-	,73 .74 ,72 .74	raw, American, dom., bga., l.c.i., same basis
sis, (n. alid	,78 –	Undecylenic actd, dms., workstb. 2.70 - Urea, 46% N, Ind., bufk, 50-ton c.i.,
sturry shipments, 50 ton tots, drybasis, frt. alid	.80 -	divd
Titanium hydride powd. electronice grade, dms	26.50 <i>-</i>	46% N, agricultural, bulk, divd. Wast ton 210.00 — Uva-Urai leaves, bis
Titanium tetrachkoride, tech., bulk, c.l., f.o.b. works	.30 .35	
(han 5,000 lbs. f.a.b. wks lb, 200-gal cylindars c.l., same basis lb.	4.85 ~ .60 ~	W
Toblas acid, 2,000 lbs. or more lb. d-a-Tocopherols, 67%, dms kilo d-a-Tocopheryl acetate, 81% conc.,	2.45 – 50.08 –	
driis	67.49 – 78.44 –	Valerian root, Belgian, bgslb65 .85 indian. bgslb45
dmskilo dl-a-Tocopherol, dmskito. dl-a-Tocopheryl acetate, USP 50-kilo	27.40 –	Vanadium oxytrichloride, 3,000 lb. cyls., works
dm. 1000 kilo min	16.00 18.60 17,00 – 7.60 8.68	Vanadium pentoxide, tech., gran., per lb. ol V ₂ O ₆ , 550-b. dms., works b. 4.10 4.94 · fused or flake, per lb. V ₂ O ₅ , 550-
Toluane, patrolaum, Ind. or nitration, tani Atlanta, Ga., divdgal,	1.36 -	lb. dms., works
Bayonne, N.J., divd gat. Baytown, Tex., f.o.b gal. Chicago, Ill. divd gat.	1.32 – 1.37 – 1.2823 –	Java, tins
Clairton, Pa., f.o.bgal, Deer Park, Tex., f.o.bgal, Ft. Wayne, Ind., divdga).	1.15 – 1.37 – 1.34 –	Imp., dms
Gulf Coast, spot, barges gal. Houston, Tex., divd gal.	.64 .66 1.22 -	extra
New Jerasy Matro, divd gal, Philadelphia, Pa., divd gal, Providence, R.L., divd gal,	1.32 - 1.26 - 1.35 -	Haltian
Toluene di-isocyanate (mixed (somers), 80%, 2,4- and 20% 2,6- (somers,		dms
jumbo tankcars, divd	1.01 – 3.55 –	Vinyl chloride monomer, polymer grade, tanks, f.o.b. worksib, .28 -
nn-Tolukline, tech., bulk	3.10 – .72 .75	Vinyl ether, USP, anesthesia, 75-cc. bots., hospitalsbots. 1.56 – 2-Vinylpyrkline t.i., dms. workskilo. 7.81 –
bulk, same basis	.60 .64 1.80 1.85	tanks, works
Liq., tanks, same basis ib. flake, same basis ib. Toluidines, mixed, o-m-p, tech., liquid,	1.70 – 1. 95 –	Vitamin A, synthetic, dry, pharm., 500,000 A units per gm., 50- kilo. lots . kilo 33.00 — Vitamin A, liq. in oil, pharm., 1,000,000 A
C.I. f.o.b. works	1.03 – .95 –	units per gram, 10 kilo lots kilo 41.00 - Vitsmin A, feed grade, 650,000 units
Tolyitriazole, dma., 1,000-lb, lots, f.o.b. Cincinnati, Ohlo lb. Tonka beans, Angostura, prime.	2.90 -	per gm
1,000-lb.lots	6.50 - .38 -	Vitamin B ₁₂ , cryst., non-sterile, USP (cyanocobalamin), vials, 50-gram, lots
Tragacanth gum, No. 1, ribbons, cris. Ib. Ilaked powder	38.00 40.00 12.50 15.00 .75 -	Vitamin B ₁₉₋ 1% trituration of cryst. B ₁₂ (cyanocobalamin USP) with dical-
Tributyi citrate, t.i., drums, f.o.b., works	1.70 – 1.85 1. 77	dum phosphate, 25-kfo dma. kfo. 10.75 12.75 Vitamin B ₁₂ , 0.1% trituration of cryst. B ₁₂ (cyanocobalamin USP) with
Tributylamine, dms., c.l., divdlb. tanks, same basislb.	1.39 - 1.33 -	mannitol, 25-kilo, dmskilo. 15.80 – Vitamin B ₁₂ , cobsismin concentrate NF with mannitol. 1,000 mcg, per
Trichloroacetic acid, tech., 300-lb. dms., c.l., f.o.b., works, lb. USP, 100-lb. dms., frt. equald lb.	.94 - .99½ -	gram, dms, per gram activity 19,45 – Vitamin By, 1% Vitamin By, USP, ab-
1,2,4-Trichlorobenzene, pure, tanks, divd	.611/2 -	scribed on resin, 5-killo dms., 500- gram lots, irt.alid. per gram activity 15.65 – Vitamin B ₁₂ , 1% cobalamin concentrate.
sumers, dvd	.40%	NF, absorbed on resin, 5-kilo dms., frt. aid. per gram activity 15,40 —
worksib. Trichloroethylene, tanks, divdib. Trichlorolsocyanude acid, dmsib.	.42 – .38½ – 1.25 –	Vitamin B ₁₂ , 1% cyanocobalamin in gelatin, 2.5-kilo dma., frt. aldper gram activity 15.40 —
Trichlorophenoxyacetic acid (see 2,4,5- Tricholine citrate, 65%, soin., non- ret. dms., 1,500-lb. lots, dvdlb.	T). 1.35 –	Vitamin C (see Ascorbic scid). Vitamin D (see Cholecalciferol) Vitamin D ₂ (see Codiver and Fishilver oils).
Tricresyl phosphate, tanks, f.o.b.	1.55 1.60	Vitamin E (see a-Tocopherol and Wheat germ oil). Vitamin H (see Biotin).
Tridecyl alcohol, mixed isomers, tanks, clvd ib. Triethonolsmine, 85%, tanks, clvd. E. ib.	.57 - .45 .48	Violet methyl toner (see Methyl violet toner)
99%, tanka, same basis. (b. Triethanolamine lauryi sulfate, tanka, i.o.b. works. (b.	A5 .48	
Triethylamine, dms., c.l., divd	27¼ .27½ 1.33 - 1.20 -	
Triethyl citrate, t.l., drums, f.o.b., works	1.82 - 1.15 -	Warfarin 0.5%, dms., ton lote, frt. alld.
Triethylene glycol, lanks, f.o.b. Guff to. Triethylene glycol dipelargonate, tanks f.o.b. works	.47 –	New York or Chicago ib
40-60% tanke, 100% basis, frt.	.35 -	White precipitate, USP, powd., 100-lb, cms., i.o.b. works
Triethylenetetramine tanks, frt. equald, lb. Tri-iso-tolyl trimellitate, f.o.b. works lb. Tri-isobutylane, tanks, divd	1.43 1.45 .51 .55 .45 -	Whiting (see Calcium carbonate). Wintergreen oil, syn. (see Methyl saligylate). Witch hazet bark, bis
Tri-isopropanolamine, dms., c.i., irt.	.571/2 -	168ves, bis
Trimethylamine, anhyd., tanks, frt. equald., 100%	541/2 -	325 mesh, bgs., c.l. workston 117.00 — high aspect ratio, bgs., works ton 164.00 — Wollastonite, t.l., f.o.b., producing
basis. 100% tonks, frt. equald., 100% basis. 10	631/2 -	plant, general grade
Trimethyloipropane bgs c.l. t.l. divd. lb Trimethyloipropane triacrylate, t.l	73 -	1250 meshton 500,00 Wool gresse, USP (see Langin).
dma., i.o.b. worksib Tripeniaerythritor, tanks, frt. alid., E.ib Triphenyi pliospitato, dnia , t.i., frt	. 1.00 -	Wormsead of Isaa Chenopodium off, NF) Wormwood off, cns
equa\u Tripropyleno giγcol tanke, frt. alid	. 1.64 .78	
Tris-ingdressethyljust en etheria, solid	. ans –	
Trisodoum plicumhaid their Schomigha Tryptophina than 15 lida (a) — Sho Tung od facilit, mp Toste York — B	o 52.00 (5.00 32 43	
Tungolic and 90' 2%, data 1,750 6,000 as., works). 12.85 -	Xaathangum, food 300-to. dms., f.o.b. works 6.20
T Tulmarc, Alaphey	. 35 1.10	ind., grado, same basis ib. 4.54

June 9, 1986

	Name and Address of the Owner, where the Party of the Owner, where the Party of the Owner, where the Owner, which is		100
	Xylone, petroleum, text or nitration, tanks		
.១០	Albance, La., Cob spal	1 08	
	Atlanta, Ga., वीरव	1.35	
	ยลyonno, N.J., divd	1 36	
	Buyonne, NJ to be a gal	131	
	Baytown, Text, Lorb got	1 -(1)	
	Chicago, IIII , alval . a.al.	1,36	
	Clairton, Pa 430	1 22	
	Ft. Wayne, Ind. divd gal	1.37	
	Gull Coast, spot, barges gul	77	
	Houston, Tox., divd (4a)	1 25	
	New Jersey Metro, divid mail	1.36	
	Xyleno, petroleum, Indior nitration, tanks		
-	Philadelphia. Pa , divd qal	1.36	
_	Providence, R I., divd gal	1.42	
	South Bond, Incl., divd	1.37	
.15 ½	m-Xylene, high purity, tanks, 1.0 b.		
	Toxes City, Tox	36	
.14%	o-Kylene, tanks, works	.125	
_	p-Xylene, tanks, divd	. 195	
	m-Xylenediamine, dms., I.I., f.o.b.		
220.00	workslb.	1.70	
	2,4-Xylidine, tech., liq., c.l., t.l. f.o b.		
215.00	works	1.50	
_	Xyticines, mixed, o-m-p., dms., c.l., t.l.,	-100	
	f.o.b. works lb.	1.00	

5	Yera yera, 25-lb. cnslb. Yeast, pure brewer, s debittered, NF, Sac-	2.81					
	charomyces, t.l., f.o.b. works . Ro	1.10	-				
D	Yerba, santa leaves, bls	2.40					
•	extra, bots	26.50	31.				
4	Ylang-yleng oil, extra grade lb.	23.93					
	grade 1	19.09					
5	grade 2b.	15.90					
	grade 3b.	13.04					

l			
ì	Zein, bga., 2,000-lb. lotslb.	7.50	9.30
ı	Zinc acetate, NF, dms b.	1.00	1.78
1	tech., dinydrate, bgs., t.l., works. lb.	1.60	_
ı	Zinc borate, tech., 43% ZnO, 37% B ₂ O ₃ , 50-lb, bgs., 20.000-lb, t.l.,		
i	1.o.b, workslb.	.55	_
ł	1.0.b, works		
l	drns. 20,000 lbs. t.l, f.o.b. wks. db.	.09 9.79	_
ı	Zinc chloride, USP, gran., dms kto Zinc chloride, tech., soln. 50%,	8.78	_
ı	tanks, f.o.b. Cleveland,		
1	Ohka 100 lbs.	20.20	-
ı	Concord, N.C 100 lbs.	20.20	-
1	Freeport, Tex. , , 100 lbs. Old Bridge, N.J. , 100 lbs.	20.20 20.20	_
Į	65 degree, same basis Cleveland,	EU.2U	
Į	Ohio 100 lbs.	27.90	-
1	Concord, N.C 100 lbs.	27.90	-
ı	Old Bridge, N.J 100 lbs. 70 degree, same basis Cleveland,	27.90	_
1	Ohio 100 lbs.	29.70	
ı	Concord, NC 100 lbs.	29.70	-
1	Old Bridge, NJ 100 lbs.	29.70	_
1	72 dogree, same basis Cleveland,	33.20	_
1	Ohlo 100 lbs. Concord, NC 100 lbs.	33 20	_
1	Ckd Bridge, NJ 100 lbs.	33.20	-
	Zinc chromate, bgs., dvd ib.	1.12	0.14
	Zinc cyanide, dms., c i ib. Zinc dust pigment typo 1 & 2, dms., c.f.,	1.85	2.14
	f.o.b. plant	.59	67
	l Zinc emviendalamine tetrecetic acid.		
-	8.4% Zn., ammonin sail soin.,	co	
1	i.c., t. t., f.o.b, works	.66	-
	l.o.b. works	.48	
	Zinc fluoborate, liq. cono., dms., i.i.,		_
	works, frt. equald, lb.	.27	3
	Zinc metal, high grade, divd lb. Zinc naphthonate, tq. 8% Zn. dma.,	.33	
	Olyd	.95	_
	divd	.34	.3
	Zinc oxide photo conductive, bgs., c.l.,	4794	,5
	frt. alld	.47%	,0
	ald	.461/2	.6
	Zino codia piament. American process.		
	lead-free bgs., c.l., irt. alid ib. Zinc oxide pigment, French process	.40	4
	TOOLEST, DOS., C.I., Irl, Alki., lb.	.41	,6
	Zinc phenoisulfonate, purif., gran.,		
	250-10, dma., t.l., frt, ald 10.	1.82	-
	Zinc pyridinethions, 48% dispersion, dms., i.o.b. works	8.50	8.8
	industrial grade	14.50	-
	1 4mc resinate precip. 7.2-7.6% Zn.		
	dins., frt. alid	.45	-
•	works,, b.	.17	
	4 And Stearate, USP, Duk, t.l 	.92	17
	Zino sulfate, gran., monohydrate, in-		
	dust. grade 36% Zn., bgs., c.l., works. 100 lbs.	26.50	29.
	agricultural grade powd., bulk,		m, 47.
	same basis, 100 lbs.	22.50	-
	Zinc yellow (see Zinc chromate). Zinc-ammonium chloride, bgs., c.i.,		
	Worksb.	.42	
	Zinc undecylenate, dma., works Ib.	4.67	4.7
	Zinc-formaldehyde sulfoxylate, basic	4 05	
	200-lb. dms., frt. alid , lb. Zircon gran. bga., bulk c.i., works. ton	1,05 165,00	177.
	Zircon miled bgs., 200 and 325 mesh.	(WHO W	
	C.I., workston	225.00	_
	Zirconium acetate soln., 25% ZrO, dms.,	67	94 184
	c.l., 30,000 bs. min., works ib. 22% ZrO ₂ , same basis Ib.	.97 .78 -	
	Zirconium hydride, powd., electronic		
	grade, dma., works to.	.31	
	Zirconium oxide, powd., coml., dms.,		

rconium oxide, powd., comi., dms.,

insulating, stabilized, 325°F same

ineutating, unstablized, 325°F some

ense, etabilized. 30F. some back. 15.

1:04

Econium oxychlorica IIq., ctas. 5-ton

lots, works.

electronic, same besis .

CENTRIFUGES

P5400 Sharples, 316 S/S RECONDITIONED P3400 Sharples, 316 S/S, (5) P3400 Sharples, 316 S/S, carbide tiles P3000 (PM 20,000), 316 S/S UNUSED P660 Sharples, 316 S/S (2) 40"x 60" Bird, 304 S/S, reconditioned by mfr. 6" Bird OBS, 316 8/8 NX314 DeLaval, 316 S/S 48" Sharples "Tornadomatic" 318 5/S (2) 48" Tolhurst, "Batch Master", S/S (2)
48" Sharples "Sludge-Pak" Model SP-6500, 316 S/S
48" Western States, "Sludge-A-Tron", 316 S/S, (3)
32" Baker-Perkins, pusher design, 316 S/S
26" AT&M suspended centrifuge, 304 S/S 5 H.P.
12" Krauss-Maffel, pusher designed, 316 S/S
8" Baker Perkins Pusher design, 316 S/S

SZEGVARI ATTRITORS

60 gal. Szegvari, jacketed, stainless steel 15 gal. Szegvari, jacketed, stainless steel

SB600 Alfa-Laval pusher design, 316 S/S

PRESSURE FILTERS 480 sq. ft. Durco-Enzinger, Model 60DHC489, 316SS

370 sq. ft. Niagara Model 370-348, 304SS 322.8 sq. ft. Funda Model R-30, 316 S/S, jktd., 40 HP 314 sq. ft. Niagars, Model 42-310-22, 304 S/S 259 sq. ft. Pronto, Model 3259, S/S (2) 160 sq. ft. Sparkler, Model 33\$30, \$/\$ (2) 107 sq. ft. Sparkler, Model 33S19, Nickle

VACUUM FILTERS

8'x16' Ametek, 316 ELC S/S LIKE NEW CONDITION 6'x6' Ametek, polypropylene 5'x7' Paxman, 316 S/S, precoat 18"x12" Elmco, 316 S/S, precoat

REACTORS-TANKS

S/S, G/L Reactors, up to 5000 gal. capacity, Tanks up to 15,000 gal. capacity (100's in stock) (S/S, G/L, C/S, FRP)

HORIZONTAL BELT FILTERS

8'x18' Elmco, rubber belt, vacuum (2) 4'x12' Eimco, rubber belt, vacuum (2) 2'x10' Straightline, rubber beit, complete 2'x7' Straightline, rubber beit, complete 1'x3' Eimco, rubber belt, complete

BELT FLAKERS

60"x60' Sandvick, S/S beit, with cooling delumper, all accessories. NEW CONDITION 30"x20' Sandvik, S/S belt flaker, complete

FITZ CHILSONATOR

Size 16 x 30 Fitzpatrick Chilsonator System, ali S/S construction, with size 30 granulator, with drives

BALL/PEBBLE MILLS

6'x8' Patterson Jacketed Steel Ball Mill, 50 H.P. 5'x6' Patterson Jacketed Steel Ball Mill, 30 H.P. 3'x4' Patterson Pebble Mill, aricite lined

SAND MILLS

12-30 Morehouse-Cowles Sand Mill, 50 H.P. 10-25 Morehouse-Cowles Sand Mills, 25 H.P. (2) 16-P Chicago Boller "Red Head" 30 H.P. 3-P Chicago Boiler "Red Head," 71/2 H.P. Lab Chicago Boiler "Red Head," 1 H.P.

LAB 3 ROLL MILLS

5"x12" J.H. Day, high speed, complete 41/2"x10" Ross, high speed, complete 4"x8" Kent, high speed, complete

ALL NICKLE CONSTRUCTION

i00 gal. Nooter Reactors, 30/50 PSI (2) 500 sq. ft. U.S. Autojet Pressure Filter 107 sq. ft. Sparkler Pressure Filter, Model 33-S-19 5'x3' Ametek Rotary Vacuum Filter

JUST PURCHASED

7500 gal. Terre Haute Fermenters, 304 S/S, 50 psi (5) 4000 gal. horizontal batch still, S/S 2500 gal. Hicks tanks, 316L S/S, 50 psi or F/V 2000 gal. Nooter reactors, 316L S/S, 60/90 psi (8) 2000 gal. Plaudier reactor, 316L S/S, 60/90 psi 2000 gal. Mueller reactor, 316L S/S, 60/90 psi 2000 gal. horizontal batch still, S/S (2) 1250 gal. S/S Mix Tanks, 10 HP Vari- Drive (2) Misc. G/L tanks and kettles, to 3000 gal. (8) ST 100 Aeromatic Fluid Bed Dryer, all S/S

MAJOR NEW PURCHASE

(84) NASH CL (WATER SEAL) VACUUM PUMPS
63-Model CL703 Pumps, 700 CPM, to 3' Hg. Absolut
H.P. Direct Coupled Drive, mounted on base
18 Model CL702 Pumps, 700 CFM, to 6' Hg. Absolu
2-Model CL2002 Pumps, 2000 CFM, to 6' Hg. Absolu
2-Model CL2002 Pumps, 2000 CFM, to 6' Hg. Absolu
4 Naciental Marketting (Naciental Marketting) (Naciental Marketting

RESIN MFG. EQUIPMENT— OHIO LOCATION

5000 gal. Struthers-Wells Reactor System, 347 S/S, 50 PSI or full vacuum Internal, 75 PSI [scketed, 700°F, turbine agitator, with condensor, receiver, piping,

15,000 gal. Stainless Steel Tanks, vertical, with Interna colls, top entering 30 H.P. turbine agitators (3) 15,000 gai. Stainless Steel Tank, vertical, 50 PSI 15,000 gsl. Stainless Steel Tank, horizontal, 49 PSI 200 gal. Baker-Perkins Mixers, size 17GIM, type 304 stainless steel construction, fully jacketed, duplex dispersion blades, screw tilt, 40 H.P. (5)

35 gsl. Patterson "Kneadermaster" Mixers, 304 stall less steel, sigma bisdes, jacketed, 40 H.P. (5) 100 H.P. Sprout-Waldron Hammermills, Model CG-26 (5) 28" dla. Reltz Thermascrews, 304 S/S, jacketed trough 28' long, 15 H.P. varidrive (2)

40"x84" Patterson Screens, 1 deck, S/S (9) IMMEDIATE AVAILABILITY-CALL FOR DETAIL!

NEW LIQUIDATION

PVC Suspension Plant Ohio Location 12-5,000 gal. Pfaudler Reactors, C/S construction, rate 220 PSI Internal, 80 PSI jacket, 50/25 H.P. Philadelphia

Complete Nars Vertical Fluid Bed Dryer System, all S/S, 6'7" x 22'1", 2 stage, rated up to 10,000 #/hr., with heaters, blowers, cyclones Complete Proctor Vertical Flash Dryer System, ali S/S, 3'1"

x 117'2", with heater, blower cyclones 20,000 gal. Stainless Steel Mix Tanks, 13'6"x19', 20 H.P. (2) 16,000 gal. Stainless Steel Mix Tank, 12'x18'4", 10 H.P. (1) 15,000 gsl. Stainless Steel Mix Tank, 9'6"x27'6" 40 H.P. (1) 8,500 gal. Stainless Steel Tank, 9'6"x15'2" (1) 8,000 gal. Glascote Vacuum Receiver, Glass-Lined (1) 7,000 gal. Stainless Steel Mix Tanks, 13'x6"x8', 71/2 H.P. (2)

6,500 gal. Glascote Vacuum Receiver, Glass-Lined (1) 2,250 gal. Stainless Steel Kettles, 6'8"x8', jacketed, 10

2,250 gal. Stainless Steel Kettles, 6'8"x 8', jacketed, 3 H.P.

2,000 gal. Stainless Steel Mix Tanks, 6'x6'4", 2 H.P. (3) 1,000 gal. Stainless Steel Kettles, 5'4"x6', jacketed, 2 H.P. (2)
1,000 gal. Stainless Steel Jacketed Tanks, 5'4"x6' (2)
4-A.O. Smith Silos, Giess-Lined, 14'x40', boited

1-Butier, Epoxy-Lined, 9'x32' weided 220 CFM Sullaire Compressor, 125 PSI, rotary screw design 117 sq. ft. Milkro Pulsair Collector, Model 25S-6-30, S/S Derrick Screen, single deck, 3'x5' Misc. tanks, feeders, blowers, cyclones, pumps

NEW LIQUIDATION

Chemical Plant Ohio Location 4'x6' Buflovak Drum Flaker, chrome, complete 5'x8' Ametek Rotary Vacuum Filter, S/S 4'x4' Bird-Young Rotary Vacuum Filter, S/S 3'x6' Dorr-Oliver Rotary Vacuum Filter, S/S (2) 33-12-S Niagara Pressure Filter, S&S, jacketed (2) 5000 gal. S/S Mixing Tanks, 10'x8', (3) 3000 gal. S/S Mixing Tanks, 8'x8', (7) 2000 gal. Resin Kettle, S/S, complete 1000 gal. Kettle, S/S, complete 750 gal. Kettles, S/S, complete (4)
Carter Vac Bag Fillers, type BC-1-VB (2)
Black Products Bagger System, complete
H-7 Nash Vacuum Pumps (4) 48" Sweco Screen, 1 deck, S/S 8 MA Mikro Atomizer, S/S, complete Misc. tanks, columns, condensors, pumps

Partial List - Call for Details!

SPECIAL OFFERING

33' dia. Niro Spray Dryera, 318 3/3, UNUSED (2) com-plete spray drying facility, never installed, including (2) 33' dia. chamber, Model F-350 centrifugal atomizers. All equipment new 1978, as shipped from Niro awalting installation.

10' dia Niro Fluid Bed Dryer, 304 S/S, UNUSED, complete system with drying chamber, heating-cooling systems, feed tanks, cyclone collectors, all piping.

VACUUM DRYERS

375 cu. ft. Stehning, Double Cone, S/S (9) 175 cu. ft. Venuleth, Double Cone, S/S (3) 60 cu. ft. DeDeitrich, Double Cone glass lined 50 cu. ft.F.J. Stokes Double Cone, 304 S/S 40 cu. ft. F.J. Stokes, Rotary, Vacuum, 30"x8", S/S 21 cu. ft. Balfour, Double Cone, glas lined 20"x10' Zimmer dble. screw Holoflites, S/S [ktd.,vac. (4)

MIXERS

#9 CM Farrel continuous mixer line, complete 25 gal. Ross HDM-25 Planetary Mixer, S/S 8 cu. ft. Keiley Duplex, paddle, S/S, NEW 3.5 cu. ft. J.H. Day, Nauta, S/S

DISPERSERS

30 HP Hockmeyer-XP, vsrlable speed 25 H.P. Shar, XP, variable speed 15 H.P. Meyers, XP, variable speed

FARREL LAB 2 ROLL MILLS

6"x13" Farrell Lab Mill, 10 HP drive 8"x16" Farrel Lab Mill, electrically heated, variable

3"x7" Farrell Lab Mill, oil heated, variable speed

LITTLEFORD MIXERS

FKM 8000 D, 169 cu. ft., carbon steel, 4choppers FKM 8000 D, 169 cu. ft., carbon steel KM 4200 D, 86 cu. ft., jacketed, stainless steel FKM 3000 D, 65 cu. ft., jacketed, stainless steel KM 2000 D, 43 cu. ft., jacketed, stainless steel M 20 E, .42 cu. ft., jacketed stainless steel

S/S RIBBON BLENDERS

2-215 cu. ft. Cleveland Mixer, double ribbon, 25 H.P. 1-150 cu. ft. Readco, double ribbon, 40 H.P. 1-36 cu. ft. J.H. Day, double ribbon, 10 H.P.

ROTARY DRYERS

6'x61' Rennenberg Rotary Dryers, type 304 S/S con-struction, complete with Mario Hesting/Cooling System, rated 500,000 BTU/hr. Dryers are complete with all accessories. New 1973.

ARTISAN EVAPORATORS

50 sq. ft. Artisan "Roto-thermn" Evaporators, all S/S construction, F/V internal, 150 PSI jacket (2)

COMPACTING PRESSES

78 ton Bipel Preform, Model 70T, complete 61/2 ton Manesty, Model BB3A, 27 station 61/2 ton Manesty, Model BB3A, 33 station 4 ton Manesty, Model F-3, single punch

REFRIGERATION

200 ton Lewis Package Chiller, complete 30 ton Application Engineers, Package Chiller
15 ton Application Engineers, Package Chiller
10 ton Application Engineers, Package Chiller
7 ton Mayer Package Chiller 5 ton Dunham Bush Package Chiller

5 ton Peuchen Package Chiller, (2)

SCREENS 48" Sweco, 5/8, 1 deck

30" Sweco, S/S, 2 deck 18" Kason, S/S, 1 deck, unused (3) 36"x96" Rex-Carrier, 1 deck, S/S (4) 20"x48" Rotex, 1 deck, 8/5

HEAT EXCHANGERS

Shell and tube heat exchangers, stainless steel; up to 2000 sq. ft. surface area-dozensi

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48"X 24" DELAYAL MARK III 316 SS AUTO. CENTRIFUGE 40"X 20" DELAVAL/ATM 316 SS AUTO. CENTRIFUGE 30"X 17" YOLHURST 304 SS PERF. BASKET CENTRIFUG 60 CU. FT. DEDIETRICH G/L CONICAL VAC. DRYER SYSTEM 70 CULFT, DEVINE SS II. ROTARY VAC. DRYER SYSTEM 100 CU. FT SS ROTARY VAC. DRYER 10 HP UNUSED LUWA 10.8 SQ. FT. FILATRIUDER, 316 LSS. COMPLETE

84"x81'2" BARTLETT SNOW INCONEL 600 INDIRECT CALCINEIL GARDNER DENVER AIR COMPRESSONS 900 CFM, 200 HP (2): 1100

Gandner denver am Compressors 100 cpm 250 hp 500 GAL. B.P SS SIGMA BLADE 125 PSI JKT. 150 HP 30"x23", REX, 304SS FLUID BED DRYER 20 CU. FT. P-K 316SS, PROCESSOR DRYER 1,500 GAL. 316SS CLD. REACTOR BODY, 11x13'6", 600/195 PSI 37 & 36 SQ. FT. LUWA THIN FILM EVAPORATORS 350 GAL HAST C, DBL. ARM MIXERS 1.800 GAL JKY. DOL. AILM MIXER, 40 PSI, 50 HP

10,000 GAL. HAST C TANK, AGITATED, 60 PSI B,500 GAL. INCONEL REACTOR, 60 PSI, AGIT. 2,000 GAL. 316SS REACTOR, 1000/100 psi 1,300 GAL, 316SS REACTOR, 150 FV/125 PSI

THE STREET ON STREET AND STREET A

CENTRIFUGES

48"x30" Sharples 316 mdl. T1600 (3) 48"x30" Tolhurst Hast. C Auto (3) 48"X24", 316SS, Automatic, W/plow **PUSHER TYPE** Bird-Escher Wyss, 316SS, Mdl. P500, 20", UNUSED DeLaval, 25", 2-Stages, 31695 DeLaval, Mdl. BRPX-309, SS, vert., & Mdl. BAF 50,SS Westphalla 304 SS Mdl. SAMN-5036 Delaval, 25", 2-Stages, 316 SS **SOLID BOWLS**

Sharples, Mdl. P1000, P3000, P5000, P5400, (2), PY 414 SS Bird, 40"X60", 36"X72", 32"X50", 24"X38", 18"X42', 18'x28" SS Podbielniak Midi 6000 comp. w/controls

VACUUM DRYERS 325 cu.ft. Abbe, 304 SS dbi, cone

BASKET

200 cu .ft. 316SS, 6'6"x11'6", rotary 164 cu. fl. Devine 304 SS dbl. cone 164 cu .ft. Paterson "Conaform," 316SS Dbl. cone 150 cu. ft. SS Twin Shell 150 cu .ft. SS, & 150 cu.ft. Nickel clad 125 cu .ft. SS & CS, 4'x14', 105/90/150 psi 125 & 83 cu. ft. Buflovak SS Rotary 60 cu .it. Paterson Kelly, SS, dbl. cone 40, 30 & 20 cu.ft. Stokes, SS rotary (4) 30 cu .ft. Pfaudler G/L dbl. cone vacuum

WE REAL DISE & SELL CHILLERS

SPECIALTY CHEMICAL LIQUIDATION

1,000 GAL G/L REACTOR, 90FV/105, TW DIT. MECH. SEAL.

750 GAL.GL/JKT. V.REACTOR, 100FV/90 PSI
500 GAL. RA SERIES G/L REACTOR TW DR/MECH SEAL (3)
500 GAL. SERIES EL.G/L REACTOR, 100/95 PSI.TY DR.
300 GAL. SERIES EL.G/L REACTOR, 100/95 PSI.(5) 200 GAL, SURIES EM,G/L REACTOR,50/80 PSI(4) 8,000 GAL HORIZ.G/L STORAGE TANK.2 COMPARTMENTS 2,000 GAL PFAUD. HORIZ.G/L BROMINE STORAGE TANK

1,000 GAL PFAUD SERIES XL,G/L TANK 75FV/90 JKT. 500 GAL PFAUD VERT. G/L JKT. TANK,40FV/55 JKT. 200 GAL. G/L RECEIVER, 25 PSI INT. (4) 100 GAL. GLASCOTE G/L RECEIVER 50 GAL.GLASS LINED RECEIVER, 24" DIA.X24" (4) 26 SQ.FT.PFAUD. G/L TRIMBLE CONDENSER 35/100PSI (4)

48"X30" SHARPLES 31GSS,MDL.TIGOO CENTRIFUGE 30 TON FRICK REFRIGERATION COMPRESSOR,COMPLETE 24" SPEIRY,SS FILTER PRESS,2 EYE 18 CHAMBERS 18" SPERRY, SS FILTER PRESS, 2 EYE 15 CHAMBERS 277 SQ.FT.GRAPHITE "POLYGLOCK" HT.EXCHANGER, 125 PSI 198 SO.FT.GRAPHITE "POLYBLOCK" HT, EXCHANGER, 100 PSI

FITZPATRICK MDL.D-6 FITZMILL,SS 300 GAL, SS REACTOR TW DR.MECH. SEAL 300 GAL, SS VERT, TANK, 40"X49" (2) EQUIPMENT STILL INSTALLID

304/30155

14,615(UNUSED) TITANIUM 1.600(UNUSED) 30455/30455 12,250(UNUSED) CS/304LSS (3) 1166 30155/304SS 1,024(UNUSFU) SS/PLATE(2) 7,775(UNUSED) 301LSS(8) CS/304LSS 4,840(UNUSED) CS/304LSS 481(UNUSED) 05/30488 CS/30/ILSS 462(UNUSED) GS/304SS 308(UNUSED) CS/304LSS 242(UNUSED) CS/SS (5) 2200(PLATE)

1,600(t)NUSED) 3045S/304SS VARIOUS GRADES OF STAINLESS STEEL AVAILABLE UP TO 24,000 SOLFT, MANY USUSED ALL MATERIALS & PRESSURES

206(UNUSED)

31655/31655

The American more with thought the property as the control of the property of the control of th CIONFILIETIGE PILANTIES

GLASS * GLASS * GLASS

MEACTORS

4,000 GAL, PFAUDLER, 100/80, TW, MECH. SEAL 3,000 GAL. DEDIETRICH, 100/90, PHILA. DRIVE 3,000 GAL. RA SERIES, 100/00 TW, REGLASSED (2) 2,000 GAL. RA-SERIES, 100/90 TW, REGLASSED 1,000 GAL, RA SERIES, 100/90 TW, REGLASSED 1,000 GAL. E SERIES 25/90 (4) 750 GAL. 25/90 TW. (2) 500 GAL RA SERIES, 100/90, TW

400 GAL. E, SERIES, 25/90, TW 300 GAL. E, SERIES, 25/90, TW 200 GAL. E, SERIES, 25/90 REGLASSED, TW 100 GAL. E. SERIES, 25/90, TW

OVER 100 GLASS LINED REACTORS IN STOCK

Glass lined tanks

FROM 5-22,000 GALLONS
TRAILER LOADS OF GLASS LINED PARTS AVAILABLE

UNUSED EQUIPMENT 125TON YORK CHILLERS (5)

250 TON CARRIER CHILLERS (2) 60" SWECO SCREEN, 5 MP (2)
MIKRO 4TH PULVERIZER, 125 MP (3) 12-24" SS, SWECO SCREENS... NEW & UNUSED

DUST COLLECTORS.
SS & CS, PULSE JET AND SHAKER TYPE
400-112,000 SQ.FT.

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Continued from Page 5 rather than the products created from the

He called the proposed approach "a radical and unfair departure from other industries" because the majority of products using the new technologies will not be substantially different from existing products regulated under existing laws.

"IBA believes, at this stage, productspecific review—on a case-by-case basis—is desirable and has worked in the past," Mr. Godown said, "Unreasonable regulation can stifle innovation and hinder the ability of US firms to compete in a world economy."

President Reagan recently approved a new Federal policy for regulating biotechnology under several existing laws. IBA, which has requested government regulation of its products, has endorsed the idea of coordinated regulation that permits companies

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developmental freedom while assuring the public that the commercial use of biotechnol-

In his testimony, Mr. Godown characterized a petition filed with EPA by genetic engineering critic Jeremy Rifkin, asking for Immediate imposition of financial responsibility standards, as "a product of careless

"There is no statutory basis on which the agency could possibly base such action," Mr. Godown told the lawmakers. "To construct an insurance requirement or an entire regulatory system on the basis of pure conjecture, or unreasonable fear—rather than on scientifically based probabilities—could throttle an extremely important industry still in its early stages," he sald.

Biotechnology opponents advocate tight regulation because they believe there is a risk that some genetically engineered products released in the environment could survive and multiply, causing unforeseen and perhaps serious environmental problems.

Rep. Fuqua said his bill is needed because "there is no uniform, well-considered Federal policy toward the deliberate release of genetically engineered organisms.

"Instead, the agencies are relying on a plecemeal approach that uses existing laws not written with genetically engineered organisms in mind."

Jack Doyle of the Environmental Policy Institute, a biotechnology critic, told the panels that "EPA is the only Federal agency that has a clear mission for environmental protection" and ought to house a Biotechnology Science Board to review all genetically-engineered organisms destined for commercial uses in the environment.

Mr. Doyle accused the Reagan Administration of being "willing to play Russian roulette" by exempting certain kinds of genetically-engineered organisms from regulation under the new Federal guidelines.

He also charged that the Administration was trying "to keep EPA from assuming the lead on the deliberate release question," while pre-empting Congress from writing new legislation.

"EPA should be at the center of the 'deliberate release' regulatory system," Mr. Doyle told the subcommittees, "not any White

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-Bird Centrifuge CS various sizes (8)
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LIQUIDATION

PENN, LOCATION

20617-BP double Brit mixer, 1200 gal. 5/Siki., 75 HP (2) 20618-Readco dol arm miser, 1200 gal . 31755 lkt., 75 HP. 20819-Double arm mixer, 1200 qui , 5/5 jkt , 75 HP 20816-Unused JH Day ribbon blender, 23 cu. lt., 5 HP (2) 20615-Unused JH Day nabon blender, 30455 36 cu 11,7. 20814-Unused JH Day nuber blonder, 5/S 270 cu II..25 HP. 20697-Sharplos Super Contrilugo, AS-16P 20898-Sharples Super Continugo, AS-16V 20681-Luva wipo film evaporator, 1.4 sq ft , 2 HP. 20675-Heat exchanger, 116 sq. ft., kettle reboiler, 316SS 20676-Heat exchanger, 167 sq. ft , horz., 316SS 20678-Heat exchanger, 180 sq. ft., 3163S (2) 20677-Heat exchanger, 200 sq. ft., horz., 31655 20880-Heat exchanger, 268 sq. ft., vort., 31655 (2) 20668-Heat exchanger, 273 sq. ft., horz., 31655 (4) 20674-Heat exchanger, 515 sq. ft., vert., reboder 20873-Heat exchanger, 870 sq. ft., horz., 316SS, U-tube.(2) 20872-Heat exchanger, 984 5g. ft., hur.: . 31655 20667-Heat exchanger, 1178 sq. fr., horz., 316SS (2) 20679 Heat exchanger, 1380 rg ft , horz 31695 (2) 20670-Heat exchanger, 1540 sq. (t , 1677 , 31655) 2067 1-Hent exchanger, 2140 sq. ft., horz., 316SS 20675-Heat exchanger, 116 sq. ft., horz., reboiler 31659 20878-Heat exchanger, 180 sq. lt., vcrt., 31695 (2) 20677-Heat exchanger, 200 sq. fr., horz. condenser, 3165\$ 20680-Heat auchanger, 268 sq. ft., vert. reholer, 31655 (2) 20665-Heat oxchanger, 374 sq. ft., vert., thermosyphon re-20674-Heat exchanger, 515 set ft., vert resyrhon rebody.

20573-Heat exchanger, 870 so it have Kullio rubolar, 31659 20672-Hent exchanger, 984 sq. ft., likyz., 31855 20667-Hant archarage, 1178 say R., herr., 31655(2) **20679**-Heat exchanger, 1980 sq. H., horz., 31055. (2). 20670-Hoat exchanger, 1540 eq. 11 , herz., 31655 2067 1-Heat exchanger, 2140 sq. ft., hvrz., 31655 20696-Premier Media Mill, model 10RS SS, 40 HP. 20653-Petterson dbl. cone bluncker, 500 car fr., 30455,30/IP

20866-Hoat exchanger, 523 sq. ft., horz 3169S (2)

20849 Cowles, model 7VTV, 7 5 HP, hydraulic lift. (4) 20650-Manton (malin homogenizor/disporsor, mo SMD75KL3,76 GPH, 8000 psi num. (4) 20884-NFash vacuum piima CL3001, 150 HP 20683-Tank, 31665, 385 gal., 3' dia x 6'6", dish heads. 20659-Tank, SS, 750 gal, agit vert, 5'din x5', dish tiol, 24P. 20856-Tank, 31655, vort. 1500 grd nugitated, 6' dis. # 7

25/12.5 HP, two spondinglinter. (12) 20658-Tank, 9/S. 1500 gal. vert. milt. 0' ilin. = 7' digh hoads, 25 20657-Tank, S/S, 4300 yal. vurt , 9' dia. x 9', aghator, 2 HP. 20651-Tank, 9/9, 9000 gal , aylt. 12' dlq x 14'6'', 2 HP. 20655-Tank, 5/5, vort., 12000 gal , 12' dla x 14', flat bottom. 20652-Fauk, 5/8, 20,000 ppl., 14' chr. x 18' high, flat bottom tel

SPECIAL LIQUIDATION -SALE-

Kaiser Refractory Brick Plant Gary, Indiana Call for Detail List (312) 350-2200

PRESSES

top, Gilf'nkfo natialet.

503661-Komerak Greaves, mdl. 76MSS briquetting press 20.5" dla. x 4.5" face 13392-Fitzpatrick Chilsonator, 50 HP, mdi. HA-59-30-210/ 20334-KR Komarek, 137 ton, mdi. B-400 briquetter, 18802-Stokes single puchh press, 900-530-1 (T4), 12 ton. 17224-Dorst compac., series TPA15, 20 tons. 10890-Stokes, mdl. R-4 press, 20 ton.

ARECO MIXERS IN STOCK

stock and available for quick shipment. 1-100 cu to 2-36 cu. fi 3-14 ou, ft." 1-55 cu. ft 1-24 cu. ft. 1-80 cu. ft.

All units erranged w/center bottom outlet, Dimple le vels y psi. ASME Code, custom covers, New or Used Monte. Drives can be jurnished. *Equipped w/air glands, FDA packing. Ready for in "Unit has 90 pai dimple lacket, arranged for end.

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DRYERS

Drum Dryers/Flakers (1) 24" dia. x 36" Buflovac 98 dbla. drum

dryer · (2) 32" dia.x 108" Blaw Knox Cł dbje, drum

Foundary
(1) '48"dia.x 40 drum flaker, nickel plater
drum, mfg. Blaw-Knox

(1) 60 Kg. Aeromatic, Batch, 6'x9', 56,000 (1) 100 Kg. Aeromatic Model ST 100, sanitary

(1) Western Precipitation Model P80880-A, twin screw, 12" dia. x 20' long, 88 constr., jckt. rated 15 psi, complete with 7.5 HP

1) New/Never-Used Joy Processor, CS, single screw, 16"x16" long, rated 110 psl @ 340° F., sprocket & chain drive by 1.5 HP

(1) 130 Cu. Ft. Blow Knox, Mickel (2) 132 Cu. Ft. Stokes, Nickel (1) 72 Cu. Ft. Blaw Knox, SS (1)60 Cu. Ft. Titanium Double Cone (1) 50 Cu. Ft. Gemco, 316SS sanitary, double

(1) 30"x3" Bowen Laboratory w/3" cone bottom, 88 constr., w/centrifugal atomizer, 3
HP blower & motor.(1)

) Niro lab size 32"diax2'w/2'cone w/centrif.

1) 18' dia. Bowen compit. system SS con-

•••TANKS-ALL TYPES

& SIZES

CENTRIFUGES

(1) Unused Model B-10 Podblelniak, Alloy

(1) Alfa-Laval SS Decanter, Horiz., Mdl

(2) Dorr Oilver Mdl. CH30 CSU "Merco," 31698 contacts, 150 HP

(1) Baker Perkins S-32 "Pusher Type," 86;

(1) Bird 18" x 28", 316 ELC, contour bowl,

(3) Sharples P-3000, 316SS, 30 HP (1) Tolhurat 48" x 24" perf. basket, 316SS

sanitary, auto. plow & discharge, rated 85#/cu. tt. @ 900 RPM, 20 HP XP.

(1) Tolhurat 48" x 24" Batchmaster,

(1) Tolhurst 48"x24" Batchmaster, rubber

(2) Tolhuret 48" x 24" Batchmaster, Here-

(1) Fletcher 48"x 28" Suspended type, 59

(1) Sharples Tornado 48" x 30", 31688,

) Alfa Laval Model MAPX 210 T24, 88

Sharples C-20, Super-D-Hydrator, SS, 30

PARTIAL LISTING ONLY

(2) Sharples C-27, 316 83, watted parts, 40 HP

316SS, perf. basket, w/hydr. plow & 20

lined, perf. basket, w/hydr. plow &

site lined, perf. basket, w/hydr. plow &

atomizer SS contacts
(1) 7'10" Dia. Anhydro Complete System,
sanitary SS

1) 8' Dia. Bowen, 304SS, natural gas fired

tacts, now 1976

(1) Sharples AS-26, SS

HP hydr. drive

20HP hydr. drive

20 HP hydr. drive

perf. basket, 20/10 HP

perf. basket. 40 HP XP

RIGGING

DISMANTLING

RE-ERECTION

DEMOLITION

1) Westfalls Model SAMN 5036

(2) Sharples AS-16P, 316SS

(2) Bird 24"x38", 31655, 40 HP

1) Flizpatrick Model FA 250, SS, 20 HP XP

arl-speed drive.

Rotary Vacuum

Spray

l) 32"die. x 17'6" Sandvik 98 beit flaker I) 36"dia.x 10' Buflovak Cl dbje. drum dryer 3) 42"dia.x120"Blaw Knox Cl dble. drum

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EVAPORATORS

(1) 1.4 Sq. Ft. Liws Wiped Film, 21653, 1.5 HP
(1) 1.4 Sq. ft. Liws thin film 53
(1) 5.4 Sq. ft. Liws filmtruder, 316 LB8
(1) 6.54 Sq. Ft. Volator Evaporator System 4(6 SS contracts 15 psl & FV & Int. 150 psl kt.
(1) Bit. Sq. Ft. Rodney Hunt Turbo Film, 304 SS contact parts, 15 psl & FV/160 psl jckt.
(1) 10.8 Sq. Ft. Liws BS Wiped Film Evap. System, 15/650 psl

1) 20 Sq. Ft. Kontro Horiz Adjust CF IIm. \$16Euc. 50 (1) Approx 31 8d ft. Vert., Turbo-Film Processor, 304

(1) 200 Cu. Ft. Stokes, SS constr., compit. (2) 166 Cu. Ft. Pfaudier, Double Cone, G/L, 30 &FV/50 psi jktd., 15 HP vari-drive (1) 150 Cu. Ft. Blew Knox, Nickel (1) Like New 37.8 Sq. Ft. Luwa Horiz. Thin-Film Dryor (1) 40 Sq. Ft. Kontro Adjust-O.Film, SS constr., 20 HP (1) 47 Sq. Ft. Artisen riging Film, Hast. C. (1) Approx 51 sq. ft. Praudlet Wipes film, 316 SS. (1) 80 Sq. Ft. Kontro Wiped Film Syst., 59 constr., FV/150 psi, 40 HP Cone
(1) 37.8 Sq. Ft. Horiz. Thin Film, vac. int. & 150 paig, 304/3168S
(1) 30 Cu. Ft. P-K Twin Shell, 3048S
(1) 20 Cu. Ft. Abbe Twin Cone, 3046S
(2) 20 Cu. Ft. P-K Double Cone, 304ELC

(1) UNUSED 88 sq. ft. Luwa thin film dryer horiz. 316 L wetted parts, FV int., 150 psi sat steam jkt.
(1) 86.4 sq. ft Luwa APP, CS constr., FV & 600psi 75 (1) 141 Sq. Ft. Rodney Hunt Turbo-Film, 316 9S 15 pal int., 35 pai jkt 40 HP XP

BLENDERS 800 Cu. Ft. iktd. Dbl.Rbn., CS. Abprox. 480 Cu. Ft. GB; 75HP UNUSED 460 Cu. Ft. Marion Pades, CS. 75 HP 300 Cu. Ft. CS Dbl. Cone 200 Cu. Ft. KS 3163S Dbl. Cone 175 Cu. Ft. P-K Twin Shell, 3163S 75 Cu. Ft. P-K Twin Shell, 3163S 60#/cu.ft. may dangley

75 Cu. Ft. P.K. 'V', with Ilq./solids bar, sanit. 304 SS, 60#/cu ft. max. density
69.3 Cu. Ft. GS Obl. Cone, 7.5 HP
63 Cu. Ft. Marion Paddle, CS
62.5 Cu. Ft. J. H. Day dbl. rib., CS Constr., 7.5 HP
60 Cu. Ft. 304 SS P.K. Twin Shell, w/int. bar
60 Cu. Ft. Gemco Obl. Cone, 3048S
50 Cu. Ft. CS Obl. Cone
45 Cu. Ft. CS, Ribbon
50 Cu. Ft. P.K. 304 SS, W/llq; bar,
26 Cu. Ft. P.K. Dwir. shell; SS
16 Cu. Ft. P.K. Dwir. shell; SS
16 Cu. Ft. WC Marion SS
16 Cu. Ft. WC Marion SS
17 Cu. Ft. CS, Ribbon
10 Cu. Ft. Gemiso dbl. Cone, CS 17 Fr
10 Cu. Ft. Gemiso dbl. Cone, CS 17 Fr
10 Cu. Ft. Gemiso dbl. Cone, CS 17 Fr
10 Cu. Ft. Gemiso dbl. Cone, CS 17 Fr
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10 Cu. Ft. Gemiso dbl. Cone, CS 17 Fr

FILTERS

Pressure Less 1-562 Sq. Ft., 316ELC. Hercules, 28 1-512 Sq. Ft., 31658, Niegara, 21 2-400 Sq. Ft: R/L Sparkler

1-327 8q. Ft., 30488, Ind. Filter. 14 1-320 Sq. Pt. Durco 316 85, 11 Legyes 1-259 Sq. Ft. Prento Mdl #3259, 75 -Approx. 206 Sq. Ft. SS. Sperkler.

1-200 Sq. Ft., SS, Hercules, Horiz, 1-191-Sq. Ft. Enzinger, SS, Vort., 75 psi 1-157.64 sq. Ft. Sparkler model 55-5-28, 316SS 1-150 Sq. Ft. Horiz., 12 Vert. Leaf

1-135 Sq. Ft. NI, Bowser, Vert. 1-60 Sq. Ft. Enzinger, Vert. Leaves, 316ELC SS jkt., 75/15 pel 1-35 Sq. Ft. Herculas Model 5, 316 SS. horiz, tank vert leaves 50 psi

Rotary Vacuum 1-56.5 Sq. Ft. KS; Inconel 800 2-56.5 Sq. Ft. K-S. 31655. flexibelt

1-87.92.5q. Ft. Feinc. SS wetted parts, spring disch.; 56' dia. x 6' face drum 1-132 Sq. Ft. Dorr Oliver, 30488, maxibelt disch 1-200 Sq. Ft. Elmco, 31655, 8'x8'

4-250 Sq. Ft. D.O. 316L SS Procost, 8" x10'. sanit 1-250 Sq. Ft. K-S 31658, coll disch. 1-300 Sq. Ft. Elmco, 31655 wetted

parts, precoat type w/knife disch., 10' dia x 10' drum, complt, w/con-trol panel & aux. equipment, 1-302 Sq. Ft. K-3 3168S; flexibalt diach. 1-314 80 Rt. Simco, precoat disch.

1-400 Sq. Ft, Eimco, CS, Precoat 1-500 Sq. Ft, Eimco, 31688, belt disch: 1+3-1-31688, knife disch. 1-3-1-3 Tom Cilver, FRP w/receiver & Wash Ha yad pump no Ha

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4,000 Gal. Pfaudler, 100/90 psi, TW 1,000 Gal. Pfaudler, 100&FV/90 psi, 1,000 Gal. Plaudier, RA60 Series, 100& FV/90 pal, 4DW 1,000 Gal. Pfaudler, RA60 Series, 100&

FV/90 psi, 4TW 800 Gal. SS clad, 60/60 psi 750 gal. DeDletrick, Phila drive 500 Gal. Pfaudler, 100&FV/85 psl. BH

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500 Gal. Plaudier E-series, 4 TW Drive 200 Gal. Pfaudler, 25/90 psi 75 Gal. Pfaudler, 25 & FV/85 psi, 2 HP 50 Gal. Pflauder Body-UNUSED, 25 FV/-

Partial Listing - Much More inventory
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Stainless Steel 4,000 Gal. 31655, Atmos./50 psi, withcolls 3,000 Gal. 34796 Blaw Knox, 150/50 psl 2,500 Gal. 316L SS, 75/75 psi, 150 pal int. colls 2000 Gal. Nooter Autoclave, 316L 2000 psi, FV int. colls

2,000 Gai. Dusenberg, 316 SS,15/35 & FV Int., 50 pal jkt. 1,750 Gal. 316SS Noite, 1467/50 ppl 1,500 Gal. 304SS, 10 HP Lightnin 1,000 Gal. 31655, atmos./75 pel dimple jckt., 100 psi colls 1.000 Gal. 304SS, 250/80 ps

1,000 Gal. 316SS, 50M/75 pel jkt & 2000 psi li colla 750 Gal. 316S. 75 & FV/50 psl 750 Gal. 304SS, 50/60 psl 600 Gal. 316SS, 3000psl, 10 HP 600 Gal. SS, 50 psi, 1.5 HP XP

500 Gal. 316SS, 55 & FV/55 pal 100 Gal. 316SS, 15/50 pal 100 Gal. 316ELC SS, 500/90 pai 100 Gal. Theo. Walters, 15 psi shell, 75 pel jckt & colla, w/Lightnin mixer

*** SPECIAL OFFER *** 1-UNUSED, never installed Krouss Malfei Turbo Tray Dryor, 29 trays, 9' 9'din., 316 L SS, all other wetted parts 316 SS, complete unit. PRICED TO SELL

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1.5 Gal. Kneeder Master Cont., 68 w/lkt. 5 Gal. AMK 30488 Joktd. Kneader Extruder 15 Ga. W.C. Readco Sigma Blade Dbl. arm 80 Gal. Hockmeyer Pony, SS contacts, 7.5 HP 100 Gal., SS, Sigma Biade, Joktd. 40 HP 200 gal. W-P CS dbie arm Sigma blade, 20

250 gal, AMK Kneader Extruder, Sigma Blades, CS construc, 40 psig,trough jkt. 300 Gal. Baker Perskin CS Sigma Blade, jktd. 500 Gal. S-W Rubber Cement, CS, 2-10 HP

Unused 1000 Gal. Sankary 316SS B-K Dbl. Motion Change Can; 100&FY/165 PSI, Littleford Model FKM-2000, SS, w/choppers Prodex Henchel 3.5 Cu. Ft. Mdl: 35 J SS, SS

- 7 Cu. Ft. 30458 Nauta Model MBX-70 10.6 Cu. Ft. Naula D-105, CS 48 Cu. Ft. Marion Paddle, sanit. 83, 20 HP 50 HP Meyers Disperser, 2/500 gal. CS tank, v-speed & hydr. lift 20 HP Cowles Hi Speed Disperser

15 HP Hockmeyer Hi Speed Disperser
Welding Eng. Model 2FV1V28 Twin screw
Extruder, SS, Contacts, 150 pai PLUS LOTS - LOTS MORE

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12,000 cu. ft. steel, 27' x 40', butler botted 5,800 cu. ft. steel, 12'6" x 48', botted 1,050 cu. ft. 30468, 8' x 18', plus cone (3) 450 cu. ft. 30459, B', x 5', cone 375 cu. ft. 30485, B'6" x 5', 7' cone 270 cu. ft. 30488. 6' x 14' 95 cu. ft. 30453, 5' x 4', 4' cone

Sterilizer, 20" x 20" x 36", 35 Ameco Sterilizer, 2" x 5" Ameco, SS

DUSTCOLLECTORS

81 eq. ft. Carter-Day, 12 bags 100 sq. ft. Draco, aluminum 185 sq. ft. Draco, aluminum 225 sq. ft. Fuller, 2400 CFM 603 sq. ft. Mikro Pulsaire # 645A20, 59 765 eq. ft. Carter-Day, 7200 cfm 1130 sq. ft. Mikro Pulsaire, #1F1-48, SS 1460 sq. fl. Carter-Day, 88 12000 CFM 2688 sq. ft. Parsons, 7660 sq. ft. 6000 eq. ft. Standard, 75000 CFM, UNUSED (4)

DAYERS Blaw-Knox 6'4"x 40' SS vac. dryer, 600 cu. ft Maihis 24"x48" flaker, chrome plated Sandvik 48"x24" SS belt flaker, UNUSED Sargent 60" x 45" SS conveyor dryer Stokes 8" x 11" drum flaker Blaw Knox 32" x 90" dbl. drum Buffovak 42" x 120" dbl. drum, 160 psi Aeromatic #ST-5 fluid bed dryor, 5/10 KG Gistt #WSG300 fluid bed, 304 SS, sanit., 1974 (2) Witte 36" x 10" fluid bed, SS, senit,-coole Slokes 38 eq. ft. Lyophilizer freeze-dryer Struthers-Wells 72" dis. pan dryer, fxtd. Rennaberg 36" x 20" rotary dryer, 316 SS Rannebarg 5'x 25' 304SS rot. hot air dryers, w/cyclone, etc. (2) GATX 304 SS hot air dryer, 8' x 35', 7' x 35', 6' x 35' (3) 96" x 50' Louisville SS relary dryer 10' x 100' GATX rot. steam tube dryers, 140 pai (4) Wysemont #VTL-24 Turbo-tray dryer, 3048S P-K 5 cu. ft. vac. dryer, 30458 P-K 20 cu. ft. yec. dryer, 304L \$5 (2) Abbe 30 cu. ft. 304SS vac. dryer

JUST PURCHASHO!

Devine 110 cu. ft. 304 SS vac. dryer

Abbe 325 cu. ft. 3168S vac. dryer

Devine 370 cu. fl. 31688 vac. dryer

Devine 564 sq. fl. vac. shelf dryer

Turbulaire 48" x 7" spray dryer

Bowen 72" spray dryer, 88

Bowen 96" apray dryer, SS

Hiro 30" SS apray dryer

Blaw Knox 66" x 36" vec, dryer, nickel

Plaudier 165 cu. ft. glass-steel vac. dryers (2)

Blaw Knox 35" x 20' yec. dryer, 316L SS, 72 cu. ft.

(2) Filzpatrick #FA150 fluid bed dryer, SS contacts, 150# capacity, aleam heated, 1980. (1) Bird 36" x 72" contin. centrifuge, 316LSS, 10/30 contour, 1978, w/spare rotating assembly.

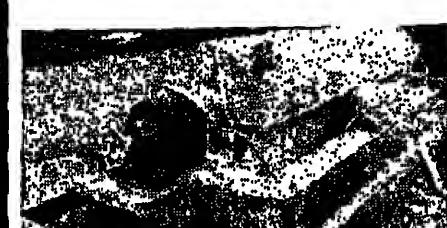
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multi-raller liller pross sludge dewatering system, buill 1984, (3) dovatoring knines, 3048S helt, skld mounted, capacity up to 12TPH of 150 GPM. Built Palimen #REF8 pulv., 100 HP 1984...CALL & SAVE

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Over (50) Bird & Sharples decenters CENTRIFUCES

Sharples P-5400 D-Center, 316SS, Carbide tiles, late (2) Sharples P-3400 D-canter, 31695, tiles (2) Sharples P-5000 D-center, 316SS Sharples P-860 D-canter, 316SS, back drive Bird 6", 3165S, Decanter Bird 12" x 30", 31655, Decanter, 20 HF Bird 18" x 28", 31658, Decanter (3) Bird 18" x 42" Decenter, steel, 10/30 Bird 24" x 38" Decenter, 304SS, contour-10 Bird 24" x 38" Decenter, 316SS, contour (3) Bird 24" x 60" Decanter, steel Bird 24" x 86" Decanter, SS, 125 HP Bird 32" x 50" Decanter, Monei, contour (2 Bird 32" x 50" Decanler, 304SS, contour Bird 36" x 96" Decanter, 316SS, contour DeLaval NX207 Decanter, 316SS (2) DeLayal NX214-31B Decanter, 304SS, 20 HP (2) Sharples AS16Y "Super," SS (5) Sharples AS26V "Super," SS Sharples AS16NF "Super," SS no foam (3)

DaLavel BRPX-309 SS clarifler DaLayal BRPX-213-30, 316S\$ separator/desludgers (3) restiana sammi suut, 35 ciainnet Westfalla SAMN15037, Desludgor/Separator, 316SS Westfalla SAMN5036 clarifier, 316SS Westfalla SA14-35-076 3-way separator, 316SS Krupp 10" pusher, 316SS, 15 HP Baker-Parkins 10" pusher, 31655, 15 HP Baker-Perkins 19" pusher, 304SS, 40 HP Podbielniak extractor: #6500, 7000, 9500, SS contacts, (3) Sharples 48" T-1600 auto-basket, 100 HP Tothurst 48" Batchmaster, rubber lined, 30 HP Sharples 48" Tornado-Matic, SS, 25 HP Delaval 48" Mark 111, 31659 hyd.

DeLaval 51" horiz, basket, 3165S, #T1300 CENTRIFUGE PARTS... Sharples, Bird, Delaval, etc. TO A DAY HE ALL AND A SECOND

21 sq. ft. Rodney-Hunt Turbafilm #4, SS 87 sq. ft. Rodney-Hunt, 304 SS, Turbafilm 100 sq. ft. Plaudier, 316L SS, wiped film 600 eq. fl. Goslin-Birmingham dbi, effect, 35 854 sq. ft. Bufloyak dbl. affect. SS 1415 sq. ft. Vulcan, 31658 1688 sq. ft. Roger dbl. effect, SS Swenson 31698 continuous crystallizer, 9" x 14"

SPECIAL... SDAUPLES GENTRIFUGES

(2) Sharples #P5400 Super-D-Centers, 31688

contacts, carbide tiles hard surfacing, etc.

TANKS & VESSELS

30,000 gai., 30488, 14' x 24', colie, 200 HP agit. (4) 30,000 gai. steel propane lanks, horiz. 250 pei (5) 20,000 gal., 30488, 12' x 24' (2) 17,000 gal., 3045S, 11' x 24' (3 10,500 pai., 316L 88, 8' x 25' 10.400 gal., 30458, 10'6" x 16', agit. 8.000 gel., 30455, 10'6" x 12" 5,000 gal., 30489, 9'x9', 26 HP agit. 3,500 gal., 30488, 8'x9' 3,000 gal., 304\$\$, 7'x 10', agit. 3,000 gal., 316SS, 6'x16', 15 pel ALSO... (200) 30488 and 31688 tanks from 100 thru 2,500 gallon capacity, horiz, or vertical, many with agitators, Jackets, colle, etc. ... CALL FOR LIST!

PULVERIZERS

Wikro #5MA atomizer, 5 HP Mikro MRMA atomizer, SR Wike #20H puly., 88, 5 HP Paliman #PP6 pulv., 50/75 HP
Abbe porcelain pebble mills... 36"x42", 36"x48", 42"x60" ', 48"x80", 80"x48" (7) Raymond #6058 Hi-side roller mills, dbl. whizzer (2) Raymond #73612 Hi-side roller mill, dbl. whizzer Raymond #00 HEP hammer mill, 18 HP Williams "Giant" 64" hi - side roller mill puly., 200 HP, 6"

June 9, 1966

Whizzer.

Fig. 18 Sept. VACINIM

20" x 6' Straight line, SS 36" x 1' Ametek, 31655, 9 sq. ft 40" x 3' Bird-Young, SS, 48 sq. ft. 4' x 3' Eimco, steel, 36 sq. ft. 4' x 16' Elmco, 31655, 64 aq. ft., horiz. 5' x 6' Ametek, SS, 98 sq. ft. 8' x 3' Ametek, SS, 55 sq. ft. * x 4' Eimco, "Eimcomet" polypropylene, UNUSED 6' x 4' Komline, SS, 75 sq. ft. 6' x 5' Elmco, rubber, 90 sq. ft. 6' x 10' Feinc, SS, 178 sq. ft. 6'x6"x 14'-9" Passavent 200 belt press, 250 sq. ft.,1982 (4) 8' x 8' Elmco, SS, 200 eq. ft., precost

8' x 10' Dorr-Oliver, 250 sq. ft., 316SS, precoa

8' x 12' Eimco, 31695, precoat, 300 sq. ft., (3)

8' x 14' Dorr-Oliver, Monel, 350 sq. ft. 10' x 10' Elmco, 31855, precost, 314 sq. ft.

8' x 14' Dorr-Oliver, 316SS, precoat, 350 sq. ft. (2)

12' x 12' impco, 304 SS, 450 sq. ft. 12' x 14' Komline, 304SS, 525 sq. ft., flexibelt disch.

FILTERS PRESSURE

12 sq. ft. Amatek/Niagara #12, SS 20 sq. ft. Sparkler #RSC20, SS 24 sq. ft. Milapore, 20 plates, SS 54 ag, ft. Funda, SS, Jktd. 85 sq. ft. Artisan "Dynamic" filter/washer, SS (2) 150 sq. ft. Nisgara "Betchmiser," SS 320 ag. ft. Durco, 316L SS 400 eq. ft. U.S. autojet, SS, (2) 612 sq. ft. Nagara #510-28, 31655 600 eq. ft. U.S. Autojei, 316SS, sanit. 821 sq. ft. Industrial, SS, & epoxy (2) 1000 sq. ft. U.S. Autojet #1000, 30499 13" Horman filter press, 21 plates, SS, sanil. 30" Sperry filter press, 11 cu. ft. 38" Shriver filter press, 546 sq.-ft., hydraulic 42" Shriver filter press, 777 sq. ft., hydraulic 48" Shriver ALP recessed filter press, SS, 276 sq. ft. 48" Clow, polypropylene recessed, 1500 sq. ft.



(40) S/S mixers & blenders

MIXERS, BLENDING

2.5 cv. ft. Littletord-Lodige, 15/30 HP G.5 cu. ft. Henschel #FM15D, 17/20 KW 11.5 cu, ft. Henschel #115JSS, 92/46 HP 13,7 cu. ft. Lodige #W600/K1200, mix/cool comb. 20 cu. ft. P-K twin shell SS 35 cv. ft. Day Nauta, #NBX350, SS 60 cu. ft. Gamco dbl. cone, SS 69-cv. ft. Patterson dbl. cone. SS 70 cu. ft. Day Nauta, #NB700, 10 HP 75 cu. ft. Day Nauta, SS. Iktd. 98 cu. ft. Day Nauta, SS, 1981 100 cu. ft. Aaron, dbl. ribbon, 31686 110 cu. ft. J.H. Day, dbl, ribbon, 31688 189 cu. ft. Pfaudier, dbi. cone, glass steel jktd., vacuum 200 cu. ft. Young, ribbon, SS 312 cu. ft. Patterson, dbl., cene nickel 318 cu. ft. Sprout-Waldron ribbon blender, SS, jktd. 650 cu. ft. Porter, dol. ribbon, eteel 1000 cu. ft. Patterson dbl. cone, 304 SS, 125 HP

LIQUIDATION ... PHARM.

(2) Blaw-Knox 6' x 40' SS rolary vacuum dryor, 600

(1) Dolaval Hark III 48" 'x 30" bashot centrifuge. (1) Blaw-Knox thormo recompressing evap. 3-effect, 1835 sq. II., **99** (1) Alathis 24" 'x 48" dbl. drum flatter, chrome plated,

(1) Drum flaker, 4 x 0, 85 clad



30,000 gal. 304SS fermentors, 14' x 24', 25 psi/vac colls, 200 HP agit. (4) 15,000 gal. 316LSS reactor, 12'6"x 15' 100 psi int., 200 pel jkt., agit. (3) 10,000 gal. Pfaudier 316LSS reactor, 138"x 148", 100 pel

int., 150 pel jkt., hyd. agit. (4) 5,000 gal. 3048S, atm. int., 75 pel jkt., agit. 4,100 gal. 304SS kettle, 16 pel jkt.., 5 HP agit.
4,000 gal 316 LSS Pfaudier reactor, 100 pel-FV, 90 pel

jktd., 25 HP agit., cond., etc... 1979 3,500 gai. 316SS kettle, 20 psi jkt., 7½ HP agit. (2) 2,500 gai. 304SS reactor, 75 psi/FV int., 180 psi jkt. 1,500 gai. 304SS kettles, jktd., 5 HP agit. (3) 1,150 gai. 304SS reactor, 15 pei int., 25 pei jkt., 5 HP agil 900 gal. 304SS reactor, 75 psi/FV int., 150 psi jkt., sgit. 600 gal. 3048S reactor, 300 psi int., 75 psi jkt., colle (3)* 500 gal. 3045S reactor, 150 psi int., 150 psi jkt., 5 HP sqt. 300 gal. 3165S reactor, 75 pei/FV Int., 80 pei jkt. (50)... 316SS and 304SS reactors and keilles from 5

gallon to 400 gallon... call for list.

ł gai. Płaudier, 750 pai/FV, 700 pai jkt. 20 gal. Pfaudler, 35 psl, 100 pai jkt., agit. (2) 30 gal. Pfaudier, jktd. 50 gal. Plaudier, 25 psi, 100 psi jkt. 50 gal. Plaudier, 100 psi/vac., 85 psi jkt., agit., 1975 100 gal. Plaudier, 25 pal, 90 pal jkt., agit. 150 gal. Pfaudler, 25 psi/vac., 90 psi jkl., agit. 200 gal. Plaudier, 34 psi, 75 psi jki., agit. 300 gal. Glascote, 25 psi/vac., 90 psi jkt. 500 gal. Plaudier, 100 psi/vac., 90 psi jkl., vari-drive agli 500 gal. DeDistrich, 65 psi/vac., 105 psi jkt., 5 HP agil. 750 gal. Pfaudier, 25 psi, 85 psi jkt., 5 TW agil. 1,000 gal. Plaudler, 100 pei, 90 pei jkt. 1,000 gal. Plaudler, 75 pal/vac., 90 pel jkl., 10 HP agit.

1,500 gal. DeDletrich, 100 psi/vac., 90 psi jkt., 1981 1,500 gai. Plaudler, 100 psi/vac., 90 psi jki., 25 HP agit. 2,060 gai. Plaudler, 100 psi/vac., 90 psi jkt., 15 HP agii. 2,500 gal. Pfaudier, 150 psi, 90 psi jki., #TW6 agit. 3,750 gai. Pfaudler, 150 psi jkt., polymerizer, agit. 4,000 gal. Pfaudler, 100 psi, 90 psi jkt., agit: 9,000 gal. Plaudier, 90 pai/vac., 90 pai jkt.

NEW PERMY NEAT EXCHANGERS IN GUORE. INTERNATE DELIVERY ALL units 3/4" On Inbeni, 75 PSI/full vac. shell side & tube aldo.

47 sq. ft. 98 sq. ft. (3) 102 sq. ft. (1 141 sq. f 141 sa. ft. (3 213 aq. ft. (2 320 sq. ft. (2 471 sq. ft. (1 320 sq. ft. (2 911 sq. ft. (1



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(6) Nooter 4' x 14' rotary vacuum dryers, 316 SS, New 國際即用。其中語

AGITATOR DRIVE, Lightnin#73Q7-5, 71/2 HP (5) FILTER CLOTH WASHER SYSTEM, Abie Model AGITATOR DRIVE, Chemineer #3HTD10, 10 HP BALERS, Dispozapak #D600 balers, (2) BAG PACKER, Hows-Richardson #G-8-17 FURNACE, C-E Air Co. "Cor-Pak" thermo oxysemi-automatic bagging system SS con-

tacts, heat sealed cloaer, atc. 11'6" x 11'6" x 18" high, steel reinforced (2) CENTRIFUGE, Bird 24" x 96", 30498, Model 15 solid bowl continuous, 10 deg. contour bowl, Tungaten carbide tiles on conveyor, 150 HP. 2900 RPM bowl speed

CHLORINATION SYSTEM. Wallaa & Tiernan tem for Mikroa #V800 floor mounted modular chlorinator, MIXER, Air mix blender system, Koppers-Sprout w/50 lb. per day rotometer.

COLUMN, 48" dla. x 15'9", 30488 wash columns, designed for agitation (2) CYCLONE, DuCon Model 700/175 304SS high MIXERS, Webb, 59" W x 15'L twin shaft paddle efficiency cyclones, size 210, Type VM (8)

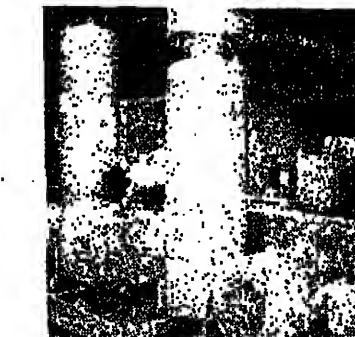
DRYERS, Nooter 4' x 14' rotary vac. dryer, 316L ASME 100 psi/FV int, & jacket, 100 HP pack- letize, shrink wrap, stc. automated system. aged Reliance drive with freq. convertar. PULVERIZERS, Mikro #4TH pulverizars, 125 HP Mech. seals, (6)

DUST COLLECTOR, EVO reverse pulse, 320 sq. PULVERIZERS, Mikro #4MP pulverizers, 125 HF ft., #FTBV99FVO25E, steel contacts (4) DUST COLLECTOR, EVO reverse pulse, 840 sq. PULVERIZERS, Mikro #18CB, 71/2 HP, with airft. cloth area, (4)

DUST COLLECTOR, EVO reverse pulse, 67sq. PUMPS, Gorman-Rupp #111/2ARB sump pump, ft. cloth area, 30" x 9' (5)

ft. 30495, 30" x 9'10" (8) ELECTRICAL SWITCHGEAR, S&C Elac. 25 KV PUMPS, Able #H18-57-45 triplex pump, 50 switching panels, 600 amp main bus, 20,000 GPM @ 1500 psi, 50 HP amp, 750 MVA... (20) panels outdoor and PUMPS, Peabody #14DOH-2 cooling tower

FEEDERS, Acrison gravimetric Weigh feeders, contacts. Model BDF-4 volumetric feeder, Size "R" metering, auger and disc. cylindar, SiLOS, 50' x 50' boltad sectional steel allos etc., etc... all SS contacts



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(Jn) Roots "Whispair" positive blowers, packaged by Flo-Tronics, for pneu transfer... (29, 100, 50, 40, 25, 20, 10, 5 HP sizos. ALL NEW!

B154AB, overhead bridge construction, w/ Able 1600 psi triplex pump, holding tank, etc. dizers, direct gas fired 8'x2" W x 7'9" H x 12'6" L (4) BINS, 304L SS contacts, 1300 cu. ft./9720 gal., LIME SLAKING SYSTEM, Kemco with 2500 cu. ft. storage bin, dust collector, volumetric screw faedar and lime slurry slaker, grit re-

moval system, slurry pumps, tank controls, LUBRICATION SYSTEM, MIST Lubricator sys-

Waldron #36-50, 500 cu. ft., 304SS, 8' x 19'10" w/483 sq. ft. top mountad dust collec-

mixers or pug mills, 30488 contacts, twin 15 85 shall and Jacket, incolor ribbon agit. PACKAGING SYSTEM, dasign to fill bags, pal-

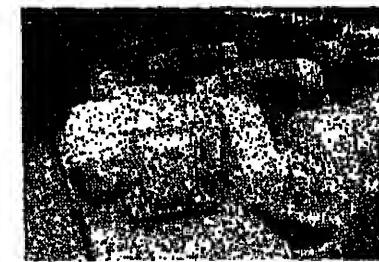
lock & 30488 disc. chute

DUST COLLECTOR, EVO reverse pulse, 102 sq. PUMPS, Gorman-Rupp 3" self priming 31888, 5

pumps, Type A, 2000 QPM at 140' head, 100 Modal 403-15,000-3,000-BDF-4, 304 85 SHRINK WRAPPERS, CTX Prod. #PSBV4X46 shrink wraps with oven

> TANK, 10,000 gal. FAP sludge conditioning w structural steel bridge TANK, 2500 cu. ft. bin, 12' x 44' plus, 60 deg.

> TANK, 500 gal. 3048\$ hopper, 56" x 40" plus 4"



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5500 gai, 304 SS, 15/125 psi, 1/2 pipe coil 1., agit, New 1974 3000 gal,304 SS, 25/125 psl, ½plpe coll jktd., agit New 1974

3000 gal. 316 SS 100/150 psi varispeed

1000 gal, 316 SS, 30 & FV/150 psi, agit. 500 gal., 316 SS, 75 & FV/70 pai, agit 24 more in stock from 10 to 300 gals., 304 & 316 SS. Call Now.

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69 cu, ft. SS Patt. cone. w/liquid bar Ribbon/Paddle: 650, 200, 120, 70, 40, 23 cu. Conical: 320, 200, 150, 130, 100, 75, 69, 40,

30, 20, 10, 5, 2 cu. ft. (18) Twin Shell: 200, 100, 75, 40, 30, 20, 3 cu. ft some with intensifiers (12)

MIXERS

Double Arm: 1000, 500, 300, 200, 150, 10, 7 21/2 75 gal. Sigma, jktd. Pony: 125, 75, 100, 80, 60, 50 gal. (12) Planetary: 100, 85, gai. vacuum Dispersers: 75, 50, 40, 25, 20 15 HP (8) Littleford: FKM 2000D, FKM 600D, FKM 300 D, FKM 130D, jktd. & choppers (4)

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Vac. Pumps: NASH: CL 2003, CL 1003, AT 2004. L5. MD 674 KINNEY: KDH 150, KD 30. KS 27. Stokea: 212 H 10. Tablet Presses: STOKES, MANESTY, COLTON, All Sizes

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42" Shriver poly, 38 ch., 2 eye 48" poly chambers, 11/2" cake, 4 eye (150) 95 filter presses: 18", 16", 13", 12" (7)

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48"x30", 40"x24", 316 SS auto-batch 40", 30", 26", basket, SS & R/L avail. P5000, P3400, P3000, P2000, Sharples 10"x60", 24"x60", 18"x28", 6" Bird DeLaval: NX 207, BRPX 207 Westphalia: SAMN 5036, SA 1435-076 HS36, HS24, 58, 316 SS B-P "Ter Meer"

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Chilsonator system, all 98, 4LX10D Fitzmills: F20, F8, D6 (8) Mikro: 4TH, 3TH, 2DH, 2SCB, 1SH, 8MA 3-Roll Mills: 16"x40" to 4"x8" (9) Ball & Pebble: 8'x12' to 2'x2' (12) Colloid: 50, 25, 15, 10, 5, 1HP

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Unuaed 48"x75" Sandvik beit flaker Wiped film: 173, 87, 25, 21.6, 12 sq. ft. Belt Flakers: 48"x84', 48"x45', 20"x20" Con. Vac.: 500, 100, 50, 40, 10, 2.5 c.t. Rotary Vac.: 130, 40, 20, 10 cu. ft. 8.S. Fluid Bed: 100 kg, 60 kg, 30 kg, S.S. Double Drum: 12"x18", 6"x6", S.S. Flakers: 6'x5', 3'x6'6", drum Rotary: 8'x70' to 2'x14' (12)

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WESTERN STATES 48"x 30", perf., 316 S/S, 50HP Hyd. CHICAGO BOILER 16 P&3 gal. Sand Mills PADDLE BLENDER 113 cu. ft., C/8, 15 HP 6-CHERRY-BURRELL granulator, model 542, S/S 2-SONIC THI - HOMO Colloid Mill, 316 S/S, 40 HP EXPERT 75 gal. Reactor, 304 S/S, 275/15 PSI, 3 HP XP VS PARSONS 10 & 6 head not weight dry fillers

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36 Cu. Pt. C/S heavy-duty ribbon blender, 10 HP XP.
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Reliable 6"x12" Two Roll 141, 5 HP.

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BLENDER-330 cu.ft. Areco Ribbon Steel End. BLENDER-62 cu. ft. Day Ribbon Steel Center (2) CENTRIFUGE-Sharples AS-26-NF Stainless, 5HP CENTRIFUGE PN-4 Sharples D-Carter 304 S.S. DRYER-20 cu. ft. Economy Conical Vacuum Steel DRYER-5 cu.lt. P.K. Conjoel Vacuum Steinless EVAPORATOR-5.54 sq. ft. Rodney Hunt S.S. 316, System EVAPORATOR-1 sq. ft. Rodney Hunt S.S. 316 w/Condenser EXCHANGER-1750 sq. ft. 304 \$.S., 175/75 PSI Code EXCHANGER-1636 sq. ft 316 S.S., 150/150 PSI Code (3) EXCHANGER-175 aq. ft. 316 S S. 150/150 PSICode EXTRUDER-Black & Clawson 51s11 - 12:1 LyD FiltER 5'6"x8" Bird Young Rot. Vac. 304 S.S. FILTER 135 sq. ft. Bowser Vert, Cupro-Nickel. INCREASOR-4500 HP Phile: 1775 to \$602 RPA MIXER-Simpson 2UD, 61 dia., S.S. 316 MOTOR 5000 HP G.E. 4000 V. Synch. 1200 RPM PROCESSOR-10 cu. it. P.K. V-Týpe S.S. Jki. Vac. 550# (3) PROCESSOR-5 cu. it. P.K. V-Týpe S.S. Jki. Vac. 550# (2) REACTOR-3800 gal 304 S.S. 40:50 FSI, 10 RP REACTOR-2009 gml.304 S.S. 15/75 PSI, 71.2 HP REACTOR-2000 gal. Steel 15; 15 PSI, 7½ HP SCREEN-41x101 Tyler, Steel, 2 Deck. 3 HP

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Sharples vertical pressure cantrifuge P6000, P6800 or

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Chemical Engineering shop for sale in Southern Californ

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EDC Plant Mothballed By Lyondell Petrochemical

Lyondell Petrochemical Company said last week that it will mothball its 600-million-pound-per-year ethylene dichloride facility in Baton Rouge, La., on July 31. The company cited "poor profitability and world-wide overcapacity" as reasons for the shut-

The facility is operated by U.S. Industrial Chemicals Company. USI employs about 50 people at the plant and says it will attempt to place those workers in other areas within the

Lyondell says it has inventory on hand for customers and has also made "other arrange-

ments" for longer term supplies. According to Lyondell, the shutdown is not permanent, and the facility will be reopened

when market condition improve. Total US demand for EDC is projected to reach 12.9 billion pounds in 1986. After Lyondell shuts its plant down domestic capacity will total 15.84 billion pounds.

Olin Shuts Down Plant

Olin Corporation announced last week that it is slutting down its small specialty chemi cals plant in Wilmington, Mass. The chemicals produced at this plant are sold to a variety of markets ranging from agricultural chemicals to plastics, and these chemicals will now be produced at and/or shipped from the Olin locations.

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BP Pushing

Continued from Page 3

by Mobil Chemical Company and Exxon

Chemical Company Last year imports from the Middle East are estimated to have reached 145,000 tons,

giving Saudi producers around 35 percent of the European LLDPE market. In 1985, total linear low sales in Europe



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that risks of hot spots are eliminated. As a result the end product is consistently without lumps or fish eves. At present, the process produces a broad

increased by 37 percent and this year are

expected to go up by 24 percent to around 510,000 tons. Last year, low density sales

grew by only 5.8 percent to 3,930,000 tons and

this year is predicted to drop by 5.1 percent to

Linear low's share of the polyethylene sec-tor is expected to rise to 12 percent this year

BPCI reckons that the LLDPE growth rate

from now on will follow much the same pat-

tern as in the US, where the product's share of

the total low density market has jumped

from around 10 percent in the early '80's to

Saudi producers now dominate the com-

modity end of the linear low market in Eu-

rope, leaving Dow Chemical Europe, CdF

Chimie and Atochem of France, DSM of the

Netherlands and BPCI as the major factors

So far much of the growth of linear low has

come from exploiting the performance ad-

vantages of the material over conventional

high-pressure LDPE in the main, non-film

applications such as injection molding, roto-

molding, pipe and blow molding. There has

also been a lot of blending at low levels into

"As film is the dominant volume market in

polyethylene," explains Bev Price, BPCI's

marketing manager for polyethylene, film

applications, "further growth depends upon a

switch to the use of pure LLDPE or at least

linear-rich blends in the major film applica-

LINEAR LOW IN STRETCH WRAP

the stretch wrap sector where it accounts for

80 percent of sales but in other areas of the

film market its share remains relatively

Over the next five years, the biggest

growth in film applications is expected to be

in heavy-duty sucks, liners and carrier bags

with share rising to 50 percent in each mar-

ket by 1990 and refuse bags and lamination/

coextrusion. Altogether, linear low should

have 25 percent, of the low-density market in

In other markets, linear low's share of low

density sales is predicted to increase to 40

percent (from 8 percent at present) in injec-

tion molding, and to 25 percent in pipe and 15

A lot will depend on the willingness of con-

"With the current state of low profitability

verters to switch to the new machinery nec-

and price instability in the market it has been

difficult for them to justify changes of ma-

BPCI believes that its gas-phase process

which uses a Ziegler catalyst system devel-

oped at Lavera enables it to produce a higher

The system has a rate of reaction less tem-

perature dependant than rival processes so

percent in wire and cable by 1990.

essary for LLDPE use.

quality product.

chinery," Mr. Price admits.

Linear low has already made big inroads in

in the specialties part of the sector.

from 7.5 percent in 1984.

nearly 50 percent at present.

LDPE film

film by 1990.

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range of butene-based LLDPE copolymers. higher end of the market with specialty, dif-BPCI is also developing a new range of ferentiated products, he says. higher alpha-olefin polymers based on 4

methyl pentene-1 high clarity and strength which BPCI claims will be better than any competing hexene or octene-based LLDPE products.

luctant to compete. "If we are to sell our full output from Lavera, we will have to go into the commodity and at first," says Michel Depraetere, BPCI's business general manager for poly-

olefins. But BP's intention is to move to the

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At present, the Lavera plant, which can be

switched from linear low to HDPE manufac-4 MP-1 from a plant being built at Grange- ture without stopping production, is mainly mouth will be used with butene and ethylene producing high density, with linear output to produce terpolymers to make products of only amounting to 25,000 tons. However, this is expected to be raised to 60,000 tons by the

Besides having what it regards as a highly The company's strategy is that while Saudi efficient production process, BPCI also beoutput helps to expand the commodity sec- lieves that the location of the Lavera plant in tor, its special grades of linear low will have the northwest Mediterranean enables it to a big impact on the upper end of the market take advantage of the cheaper transportawhere the Middle East producers will be re- tion costs of naphtha coming in from the Middle East and North Africa.

A new plant at Grangemouth on the western coast of Scotland would be fed with ethylene made from North Sea ethane. But Mr. Knowland does not rule out the

possibility of the second LLDPE plant being built in Germany instead — possibly at the Erdolchemie site at Worringen.

"It's an option we are looking at," says Mr. Knowland. "Clearly in a market like West Germany we have to consider ways of exploiting it better.'

UK AND FRENCH MARKETS

At the moment the company's two main markets for linear low are the UK and France, where it has 30 percent of sales, but it still needs to strengthen its position in Ger-

It hopes to take advantage of continued restructuring in the European polyethylene "One of the appalling things about this sec-

tor is the excess of producers," says Mr. Knowland. "How can all the 15 existing producers in Europe hope to be successful in the medium or long term in such a highly technical industry? Not all of them can expect to do proper research, give a first class service to their customers and at the same time keep the European plastics industry ahead of its

"We are looking forward to the time wheh the number of producers has fallen below 10 or even as low as six," he says.

BPCI claims it has taken a lead in restructuring in recent years, the latest example of which is a rationalization deal in polypropylene with Atochem (CMR, 6/2/8), pg. 3).

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∖ Vista. Aberdean. Miss	טסט
Vista Oklahoma City, Okla	355
Vygen, Ashtabula, Ohlo	<u>100</u>
Total	8,420

*Millions of pounds per year of PVC resin and copolymer. Capacities vary with product mix. Borden maintains 160 million pounds of PVC capacity on standby at Legminster, Mass. Formosa has added over 400 million pounds of capacity in recent years through debottlenecking at Delaware City and Point Comfort. GenCorp (formerly General Tide and Rubber) sold its Ashtabula plant to Vygen earlier this year. Diamond Shamrock closed its Deer Park, Tex. plant three years ago. Goodrich closed its 150-million-pound-per-year Long Beach, Calif. resin plant in early 1985. Occidental purchased Tenneco's PVC assets in April, Oxy bought a 100-millionpound unit in Burlington, (in addition to an existing Oxy unit there) and a 700-million pound plant in Pasadena, which Oxy says can be expanded by another 10-15 percent. Tenneco closed a smaller unit in Flemington last Fall. Pantasote, a PVC compounder, stopped producing resin at Passaic, N.J. two years ago. Shintech added over 300 million pounds of capacity at Freeport in Aug. 1984. Profile last published 8/27/83; this revision, 6/9/86.

DEMAND

1985: 6,700 million pounds; 1986: 6,900 million pounds; 1990: 7,800 million

GROWTH

Historical (1976-1985): 4.0 percent per year; future: 3 percent per year through 1990.

Historical (1963-1986): High, 391/2c. per pound, homopolymer, suspension Continued on Page 15

BUSINESS BRIEFS



workforce in its staff departments by ap- technology. Any new food product, package proximately 400 by the end of this year. The or process used in food production involving program will be implemented between now packaging with plastic materials and first and December 31, with each department de- marketed or put into commercial use in veloping its own timetable for staff reduc- North America between July 1, 1985, and tions, the company says. "Reductions will be December 1, 1986, is eligible for the competimade where we can consolidate some posi- ition. Winners will be announced at the NFPA tions to make operations more efficient and convention, January 24-28, 1987. keep Amoco competitive within the indus-E.R. SQUIBB & Sons, Inc. and Abbott Labo-

DOW CHEMICAL Company will add a new \$5 million high-speed pliot coater at its Midland, Mich. headquarters to serve the coated paper industry. Scheduled for completion in the second quarter of 1987, the facility will be located near an existing pilot coater and will be completed just as industry capacity for high-speed coated publication paper is expected on line. The new Dow pilot unit is

Division has completed new plant facilities designed for operating speeds of 6,000 feet per minule.

DU PONT Company will sponsor jointly with the National Food Processors Association oil refinery in Charleston. CHEMICAL MARKETING REPORTER

AMOCO CORPORATION will reduce the awards for innovation in food packaging

ratories, Inc. will set up a joint agreement whereby Squibb's "Azatam", and possibly a number of other Squibb intravenous drugs, will be marketed as part of Abbott's "Add-Vantage" IV drug admixture system. Squibb is awaiting government approval for its product. Abbott's system was approved in September, 1985.

at its Charleston, S.C., location for the production of tall oil-derived asphalt additives. In addition, paper size manufacturing facilities are being installed at the company's tall

June 9, 1986

immediately Available from Stock.

KOMAREK GREAVES BRIQUETTER

(2) K/G briquetting presses, model 150MS-20.5-9.2, hydrauilc roll force, variable speed feeder, discharge conveyor, complete system.

VACUUM DOUBLE DRUM DRYERS

(2) Blaw Knox designed double drum dryers, 18" x 48" & 36" x 120", chrome plated, each w/vacuum chambers & vacuum pump package. Excellent condition. Ready to Ship.

WYSSMONT DRYER

Model N-22, 8' dla trays 22 high, with stainless steel contact parts. May be shipped in one plece. Steam heated.

ROTARY FILTERS Ametek 8' x 12' rotary w/beit

discharge, 316 stainless, new 1974 - Excellent condition. -Ametek 5" x 81/2' rotary w/belt discharge, 316 stainless. New 1974 - Excellent condition.

STAINLESS DRYER

Louisville stainless steel steam tube dryer, 8' dia x 40', stainless steel clad shelf w/stainless steel steam tubes.

Also Available:

Roto-Louvre mdi 900-32, 9' dla x 32' long, steam heated, 30 HP motor, all fans & Flex-Clean dust collector.

CRYSTALLIZER

Titanium contact parts, 8000 lbs p/hr capacity. New 1976. Complete and still installed.

RAYMOND ROLLER MILLS

* * * Just Purchased * * * (3) Raymond high side roller mills. model 5057, double whizzer separator, fan; feeder, cyclone, duct work & bucket elevator.

LARGE BIRDS

(12) 40" x 60" Bird decanter, 316 S/St, 15/3 deg. contour, 5" pitch, single lead conveyors w/Stellite hard surfacing, 80:1 gearbox, 100 HP V-belt main motor drive. New late 60's, Excellent condition. Limited Use. Immediately Available from

(2) 32" x 50" Bird decanter, 316 S/ST, 15/3 deg. contour, 5" pitch, single lead conveyors w/Stellite hard surfacing, 80:1 gearbox, 75 HP V-belt drive. Excellent condition. Limited Use,

LARGE SHARPLES SUPER DECANTERS

(2) Model P8100 Sharples Super Decanter, 316 S/ST, carbide tlles, 250 HP main drive, 126:1 gearbox w/backdrive. New 1979. Complete. Excellent Con-

FLUID BED DRYER Jeffrey fluid bed dryer, 5' x 20',

304 sanitary construction, complete installation including fans, dust collector, S/ST scrubber &

EXCELLENT CONDITION

INDUSTRIAL FILTERS

(2) Industrial Filter Systems, 600 & 200 sq. ft. each, dry cake discharge, spoxy lined steel tank w/316 S/ST filter leaves, completely automated w/computer controlled actuators. Like New Condition.

RESIN REACTOR

(1) 8500 gallon 316 S/Tt reactor. 30 PSI/full vacuum Internal, 15 PSI jacket, 45 PSI 316 S/ST colls, 10/15 HP 2 speed turble agitator, S/ST overhead com denser. New 1977. Still Installed. Excellent condition.

STRONG SCOTT SOLIDAIRE DRYERS Model SJS-24-16, 24" dla x 16

long, 304 stainless, dimple jacket, 50 HP vari drive. Model SJS-20X16, 20" dla x 18 long, 316 stainless steel, jacket-

Model SJS8X52, 8" dia x 52 long, stainless, jacketed, plot

JUST PURCHASED Link Beit Roto-Louvre Dryer 10'3

' x 36' long, mdl #1003-36, complete system incl 50 HP drive, firebox w/20,000,000 BTU gas burner, all fans, duo work & controls, multi-cyclons collector & Sly 30,000 CFM baghouse. Excellent Condition Still Installed.We will load - Cal for FOB Pricing

AMETEK ROTARY PRECOAT FILTERS

(1) 2' x 3', T304 sanitary stainless, complete station w/vacult receiver, pump, mix tank & Nash vacuum pump. Rebuilt. (3) 10' x 16', 316 stainless steel, 100 HP Roots vacuum pumps,

receivers, interconnecting piping, etc. Rebuilt.

(1) 3' x 3', string discharge, 316 stainless, incl S/ST apkated through, vari speed mtr, vari speed dry on drum, 319 stainless Sihi vacuum pump. Excellent condition.

MACHINERY and EQUIPMENT CORP.

P.O. Box 7632-O · San Francisco, CA 94120 Call Toll Free 800:227-4544 - In California Call 800/792-2975 OR 415/467-3400 - Telex 340-

JOBS & PEOPLE {{{ }}} JOBS & PEOPLE

Degussa Corp. Names Sales, Product Managers Degussa Corporation has appointed Richard Gustafson regional sales manager in the Chemicals Division and Nicole M. Mueller a product manager in the Pigments Mr. Gustafson will be responsible for sales of hydrogen peroxide and Degussa's complete chemical line in Minnesota, Wisconsin, North and South Dakota and upper Michigan. Miss Mueller will be responsible for developing and implementing product marketing strategies for Degussa's precipitated silica

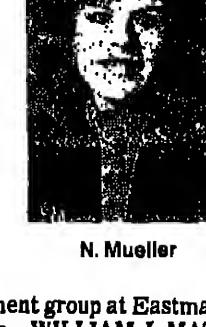
Douglas A. Corbishley, who has been elected vice-president for European operations at National Starch & Chemical Corporation. He was most recently divisional vice-president of European starch operations.

KERRY J. PFRIMMER has been appointed to the newly-created position of senior field sales representative for ETD Technology Inc... CHARLES F. PUTNIK has joined A.E. Staley Manufacturing Company as marketing manager for surfactants in the firm's Chemicals Division... MARY R. RICE has tives market development group at Eastman been named business manager for color dispersions at Harshaw/Filtrol Partnership. J.M. WILLIAMS has been appointed execu-

tive vice-president of Chemcentral Corporation... GEORGE SLOTH has been named vice-president for Group 1 Sales at Jacqueline Cochran Inc., a division of American Cyanamid Company... LAWRENCE WA-SOWSKI has been appointed technical manager of the Coatings & Adhesives Division of AZS Corporation.

JAMES J. BARBARITO has been named market manager of the new plastics addi-





Chemical Products Inc... WILLIAM J. MAZ-ZAFRO has been appointed senior process manager for chemical technology at Air Products & Chemicals Inc. WILLIAM J.



R. Gustafson

J. Williams

GODFREY has joined Glenbrook Laboratories as vice-president of marketing. AL WILUNOWSKI has been appointed general manager of Varian Associates Inc.'s Palo Alto, Calif., Instrument Division...
PHILIP A. CAMMARANO has been named vice-president of finance and administration at Union Carbide Corporation and MAL-

INTERNATIONAL FERTILIZER DEVELOPMENT CEN-

INTER-SOCIETY COLOR COUNCIL, 1986 annual meet-

NATIONAL ASSOCIATION OF PHARMACEUTICAL

MANUFACTURERS, mid-year meeting and seminar

Waxman-Hatch amendments, R. drug advertising

Hyatt Regency Hotel (Crystal City), Artington, Va.,

Ing, Ryerson Technical Institute, Toronto, Ontario,

Canada, Jointly with the Canadian Society for Color,

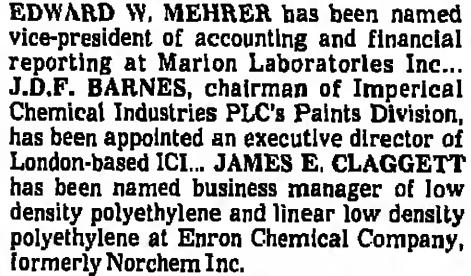
TER, workshop on fertilizer sector development in

Africa, IFDC headquarters, Muscle Shoals, Ala., June



Howard W. Gross, who has been appointed general manager of Diamond Shamrock Chemicals Company's Process Chemicals Division. He was previously international business manager for the Process Chemicals Division.

COLM A. KESSINGER has been appointed vice-president of human resources and environmental affairs.

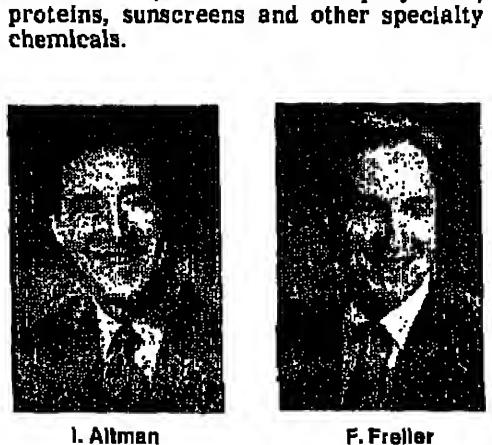


C. WENDELL BERGERE JR., PHILIP C. DANFORD, and JULIANNE A. GRACE have been elected corporate vice-presidents of Perkin-Eimer Corporation.

WILLIAM P. HULLIGAN and FRED J. WEINERT have been elected vice-presi-



G. Sioth



i. Altman

dents of Waste Management Inc... GUS WADE has been named regional product manager for adhesives and tapes by Commercial Plastics & Supply Corporation.

Carbide's Amerchol Adds

Amerchol has named Ira Altman national sales manager and Frank Freiler marketing

The company says the addition to its sales

and marketing operations are part of its plan to expand product line and service capabili-ties following the acquisition of Amerchol by Union Carbide Corporation.

Amerchol supplies raw materials to the

personal care industry. Products include

lanoline and derivatives, methyl glucoside derivatives, water-soluble polymers,

Sales, Marketing Posts



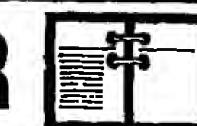


J. Barbarito

C. RUSSELL TANTON and STEPHEN C ISAACS JR. have been appointed technical sales representatives for "Tecnoflon" fluoroelastomers at Montedison USA Inc.,

RENER. BROCHU has been named national accounts manager for fine chemicals at Americah Cyanamid Company.

MEETINGS CALENDAR



L Wasowski

JUNE 9, 1986

THIS WEEK

"CHEMICAL SPECIALTIES MANUFACTURERS ASSOCI-ATION, "Detergents '86" workshop, Ramada Hotel O'Hare, Rosemont, III., June 13. DRUG CHEMICAL & ALLIED TRADES ASSOCIATION,

Spring function, Sheraton Centre Hotel, New York, FERTILIZER INSTITUTE, 1986 marketing conference. The Greenbrier, White Sulphur Springs, W. Va., June

SYNTHETIC ORGANIC CHEMICAL MANUFACTURERS ASSOCIATION, seminar on Anglo-American technology exchange and trade, jointly with Drug, Chemical & Alied Trades Association and National Economic De-Velopment Office, London, England, Sheraton Centre Hotel, Now York, June 11.

THIS MONTH

AMERICAN ASSOCIATION OF SMALL RESEARCH COMPANIES, second annual chambel innovation conference, Marriott Hotel, Saddle Brook, N.J., June

eon meeting. "The Changing Nordic Petrochemicals Industry and its Future." Sheraton Hotel, Copenhagen, Denmark, June 20.

[N87|TUTE OF FOOD TECHNOLOGISTS, 46th annual meeting, Dallas Convention Center, Dallas, Tex., June 15-18.

19-20. EUROPEAN PETROCHEMICAL ASSOCIATION, lunch-

AMERICAN ASSOCIATION FOR CLINICAL CHEM-ISTRY, laboratory products exhibition, McCormick Piace, Chicago, July 15-17.
CHEMICAL MARKETING RESEARCH ASSOCIATION,

basic short course on marketing research, Sheraton Centre Hotel, New York, July 14-18.
FRAGRANCE FOUNDATION, first international conference, "The Psychology of Perfumery," organized by Warwick Olfactory Research Group, University of Warwick, Coventry, UK, July 22-25.

LATER ON

IMERICAN INSTITUTE OF CHEMICAL ENGINEERS, BOnual Winter meeting, Mami Beach, Fla., November:

AMERICAN MICROCHEMICAL SOCIETY, Sestem Braivtical symposium, jointly with American Chemical So-

daly and Society for Applied Spectroscopy, New York Hilton Hotel, New York, October 20-24. AMERICAN PETROLEUM INSTITUTE, anytusi meeting. San Francisco, Calif., November 9-11. CANADIAN CHEMICAL PRODUCERS ASSOCIATION International symposium on transportation emerganor

CHEMICAL MARKETING RESEARCH ASSOCIATION, world chemical congress, jointly with the chemical marketing and economics division of the American Chemical Society, "The Chemical Industry: Where in the World is it Going?", Newporter Resort Hotel, New-port Beach, Calif., September 7-10. CHEMICAL SPECIALTIES MANUFACTURERS ASSOCI-

ATION, 73rd annual meeting, Mariott's Harbor Beach

response, Vancouver, B.C., Canada, September 14-

Resort, Fort Lauderdale, Fis., December 7-11. CHLORINE INSTITUTE, Fall meeting, The Homestead, Hot Springs, Va., September 21-25.
COMMERCIAL DEVELOPMENT ASSOCIATION, Impact of mergers and acquisitions on the future of Jectinology-driven corporations, Hershay Hotel, Harshay, Pa.,

CONFERENCE BOARD, business outlook conference. Walder Asteria Hotel, New York, September 24-25%

COUNCIL FOR CHEMICAL RESEARCH, annual meeting, Northwestern, University, Evention, III., September.

COUNCIL FOR RESPONSIBLE; NUTRITION, sernual

meeting, "Health Messages: New Directions and New Opportunities," J.W. Marriott Hotel, Washington,

D.C., September 7-10.

EUROPEAN PETROCHEMICAL ASSOCIATION, arrust
meeting, Monte Carlo, Monaco, September 28-October 1; distribution meeting, October 19-October 22. FERTILIZER ROUND TABLE, 1988 meeting, Sheraton

Hotel, Baltimore, Md., November 17-19. FIRE RETARDANT. CHEMICALS ASSOCIATION, Fall conference on proper processing and selection of flame ratardants, Klaweh Island, S.C., October 19-22. LATIN AMERICAN PETROCHEMICAL ASSOCIATION sixth annual meeting, Rio Palacs Hotel, Rio de Janeiro. Brazil, November 23-25.

NATIONAL PAINT & COATINGS ASSOCIATION, 99th annual meeting. Atlanta Hilton Hotel, Atlanta, Ga.,

SOCIETY OF THE PLASTICS INDUSTRY, plastics show and conference — South, jointly with the Society of

TEXTILE ASSOCIATION OF THE FULP AND PAPER IN. DUSTRY, 1986 polymers, leminations and coatings conference and trade fair, Opryland Hotel, Mashville, Tenn., September 15-17

K TECHNICAL CENTER FOR PAPER, PRINTING AND PACKAGING INDUSTRIES, fills (niemational content of the content of t

L FOR RESPONSIBLE NUTRITION, samual Colober 7-9

PULP CHEMICALS ASSOCIATION, 13th International naval atores meeting, Waldorf-Astoria Hotel, New Plastica Engineers, Georgia World Congress Center, Atlanta, Ge., October 8-10.